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CERTIFICATE IN SANITARY INSPECTION (CANADA)

C.S.I.(C.)

- Since 1935, provision for the certification of sanitary inspectors in Canada has been made by the Canadian Public Health Association. Qualified candidates who complete the requirements of the Association, including examination, are granted a certificate of competency: CERTIFICATE IN SANITARY INSPECTION (CANADA)—C.S.I.(C.)

- The examinations extend over three days and are practical, oral and written. One day and a half is utilized by the candidate in making a report on an assigned local inspection and for the conduct of the oral examination. Three written examinations covering the subjects of the syllabus occupy the remaining day and a half.

- A syllabus outlining the subjects of the examination and the requirements for registration, together with an application form and a list of recommended text and reference books and other publications, may be obtained by addressing Dr. J. T. Phair, Secretary of the Committee on the Certification of Sanitary Inspectors. Copies of the 1938 examination papers are also available if desired.

- The 1939 examinations will be held in the various provincial centres on September 20th, 21st and 22nd.

CANADIAN PUBLIC HEALTH ASSOCIATION

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CANADIAN
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Presidential Address*

R. E. WODEHOUSE, O.B.E., M.D., D.P.H.
Deputy Minister of Pensions and National Health, Canada
President, Canadian Public Health Association

MAY I convey to you the sincere regrets of the Honourable C. G. Power, Minister of Pensions and National Health in the Federal Government, that he is unable to be present this evening. The Honourable Mr. Power, although a lawyer like the Honourable the Minister of Health for Ontario, has proved to be most interested in public health and all its ramifications. He has been a tower of strength to the Department, in Parliament and out, and I know has the interests of all of us at heart in so far as Canada as a whole is concerned.

A very great responsibility is involved for the Federal Department of Pensions and National Health both in regard to the social services provided for ex-service men, for which a total in excess of a billion dollars has been spent since the war, and in regard to endeavouring to find ways and means of aiding, as much as is permissible under our governmental system, all public health efforts in Canada by the Federal Government.

Many advances have been made in the social services provided for ex-service men even in the short period of my Deputy Ministership, and I am advised that the expectancy of life of our pensioners after the age of fifty-two is considerably in excess of that of the same age group in the balance of the civil population. This item alone is probably as true an index of the possibility of purchasing longevity for a group of people as one can find. All public health measures and practices of preventive medicine, from the clinical point of view as well, have as their ultimate result, the extension of the expectancy of life of the population involved. If there is any one feature which one would be inclined to think is a more active factor in our social services for the pensioners than any other, in bringing about this position of advantage which they enjoy over the

**Presented at a dinner session during the twenty-eighth annual meeting of the Canadian Public Health Association, Toronto, June 13, 1939.*

rest of the civil population, it would seem to me that it rests in the peace of mind afforded to the beneficiaries.

The man with tuberculosis has his pension practically assured for life unless he makes such a remarkable recovery that his earning capacity indicates that the pension is not necessary. He has sanatorium treatment provided in the same institutions with the rest of the population, without cost to him and without limitation of the period of stay, so long as he is being benefited, but he has the advantage over the civil population that while he is in this institution, his family is provided for through hospital compensation paid to the pensioner, in lieu of the wages which the sick pensioner might be earning if he were not ill. As a result, the infected case is segregated from the family and infection from this source ceases. Those who were contacts of the case before he was segregated are provided with proper housing, clothing and sufficient food, and have freedom from worry of anticipation that these will be cut off. They are, therefore, in the best possible position to overcome any ill-effects from infection that they might have received before the bread-winner went to hospital. Further, the man not only has everything he needs medically and physically, but he has the mental assurance of freedom from worry as to the future for both himself and his family, and this may be a very important fact in his recovery.

During the thirteen years I was secretary of the Canadian Tuberculosis Association, my predecessor as Deputy Minister, Dr. John A. Amyot, often told me that a tuberculosis-conscious population was a health-conscious population, but that it did not follow that a health-conscious population was necessarily a tuberculosis-conscious population.

I have found great pleasure in the increasing realization that the care of the pensioners of over 600,000 enlistments provides such a remarkable laboratory for the observation of the actual operation of applied social services. Because of the number involved and the benefits available, and the knowledge of the ex-service man that he can obtain these when he needs them, there is a wonderful incentive for him to report to our offices all of his needs; and once he has reported his progress is easily observed.

Many things of interest have taken place in the Federal Department of Health in recent years. The Department has been functioning under a splendid Health Act passed in 1919 under the ministry of the Honourable Mr. N. W. Rowell. It was fortunate that the different Acts authorizing the functions of the Federal Department were formulated or revised under the supervision of such a distinguished and capable Minister as Mr. Rowell. He felt that conditions at the conclusion of the war would permit of more advanced legislation in the cause of public health than might be possible again for many years and he took full advantage of the opportunity.

In 1933-1934, the full effect of the depression of 1929 was beginning to make itself felt in administrative appropriations by all official governing bodies. It, therefore, happened that it was my privilege, on assuming office in the Department, to institute plans for recovering ground which had been lost by the Department in its personnel, equipment and financial appropriation, as well as to seek

out ways and means of amplifying the influence of the Federal Department of Health in the health work of Canada. I do not wish to bore you with details or arguments, but I am going to refer to eighteen of the developments which may be of interest.

1. The Department has established a new district in the Public Health Engineering Division, namely in the Maritime Provinces. This is a very important step in regard to Atlantic shipping in winter, railway transport and other facilities of this area and in regard to the effective supervision and control of shellfish areas.

2. We have added two new activities in our pharmacological section of the Laboratory of Hygiene: one to aid in the administration of the Food and Drugs Act in the control of the marketing of vitamins, and the other for hormones. This, of course, has involved the provision of additional technical workers, laboratory accommodation and equipment.

3. We have established a Canadian Council on Nutrition and, with it, a Technical Advisory Committee to direct the policy and activities of this Council. This Technical Advisory Committee, as is the case with three other similar committees for different functions in the Department, is almost entirely composed of professors in the respective fields in the different universities in Canada. The Council has been associated with a budgetary survey carried out by the Dominion Bureau of Statistics and two surveys of the food consumption of 100 families, financially assisted by the Milbank Memorial Fund. Four more food surveys are to be conducted, together with work in two laboratories as to the food values of various products offered on the Canadian market.

4. We have established a Division of Publicity and Health Education with remarkable results. The response of the public has been surprising, as evidenced by the large volume of requests received from all parts of Canada for literature. During the past winter the Director of Public Health Services presented a splendid series of radio talks based on the early history of medicine and public health in Canada. A continuous program of short messages—daily "Healthograms"—has been featured by the Division. These messages are extremely short, consisting of from five to eight sentences, but always contain a public health message. Commendation of the "Healthograms" and the radio addresses has been received from coast to coast.

5. We have developed a Division of Industrial Hygiene with most encouraging results. A Technical Advisory Committee has been appointed. Three surveys are in progress and the latest one pertains to a temporary, almost complete debility which occurs among men engaged in the trans-shipment of wheat. Such disability has been found among grain-trimmers and elevator workers. It is apparently attributable to skin irritation caused by wheat rust, the incidence of which varies in different years in western wheat.

6. Another division which is operating with great advantage to the Department is the Division of Epidemiology. Epidemiological studies are being conducted in British Columbia and Alberta in the investigation of Rocky Mountain spotted fever and sylvatic plague. Studies of tularaemia are also being made.

In 1938 the group of workers engaged in this study in Alberta collected and examined 821 rodents in connection with sylvatic plague and 21,000 ticks were collected in the study of Rocky Mountain spotted fever. The group engaged in the study in British Columbia examined 4000 rodents and collected 8600 ticks.

None of the ticks were found to carry the Rickettsia of Rocky Mountain spotted fever, although some from an area in British Columbia produced reactions suggestive of a low-grade infection with that disease. Ticks from three areas in central and south-eastern British Columbia and two areas in Alberta gave virulent strains of *P. tularense*. No plague infection was found in tissue specimens or on fleas, but the experience of the American workers shows that each area must be surveyed more intensively than we have yet been able to do. A staff, with a motor car, is working in both provinces. In the investigation of the possible occurrence of sylvatic plague, rodents are collected and the fleas on these examined. Ticks are being collected and examined for the presence of Rocky Mountain spotted fever virus, and a study is being made also of the occurrence of tick paralysis and tularaemia. This is the second year that these studies have been conducted. The materials obtained in the surveys are examined in the virological laboratory recently established by this department at Kamloops on the grounds of the Laboratory of Entomology of the Federal Department of Agriculture. A staff of six are employed in the virological laboratory. In the conduct of these studies relating to the four diseases mentioned, very material assistance has been afforded to the provinces by the Rockefeller Foundation. Finally, serological studies were made in Ottawa of a group of five hundred presumably well persons to obtain information concerning the incidence of undulant fever, assisted by the Milbank Memorial Fund.

7. Before leaving the subject of field investigations, mention should be made of the study of mussel poisoning on the Atlantic seacoast which has been conducted by the Laboratory of Hygiene in co-operation with the laboratories of the Food and Drugs Division. Earlier reports of mussel poisoning related to the Pacific coast. It appears that at certain seasons of the year a very virulent toxin is present in these molluscs, due to the ingestion of plankton. The literature available would have led one to believe that the maximum toxicity would occur during the months of warmer water. So far in our experience on the Atlantic coast the toxicity tends to increase up to and including the month of December so that it is not necessarily a danger only for the period of the warm months of the year. We have been assisted in these studies by the Provincial Department of Health in Nova Scotia and we are assured of similar collaboration in British Columbia where we anticipate conducting similar studies this year.

8. We have re-established the Division of Child and Maternal Hygiene. There are two technical advisory committees in connection with the division. One consists of outstanding paediatricians and the other of similarly well-qualified obstetricians. The services of these are, of course, of very material assistance.

9. Under the Division of Child and Maternal Hygiene the Federal Government has enjoyed the privilege of co-operating with the Provincial Department

of Health of Manitoba in a study of all births in the province covering a period of two years. In this study we have had the generous assistance of the Rockefeller Foundation and the hearty co-operation of the medical profession of Manitoba. For the eleven months ending on the 31st of March, registrations have been obtained of 12,337 cases, and pregnancy records have been received—on a voluntary basis—for 8200. I think this is a most remarkable example of co-operation in a very delicate phase of private medical practice. The astounding fact reported is that, as a result of the study of these detailed case records procured by and through the recognized medical profession of the province, the maternal death rate already has shown a decided decline, approaching 50 per cent. Similar results followed studied in Rochdale, England, and in Rochester University under Professor Wilson. If this should prove to be the case over a period of two years, it is to be hoped that we in Canada will find some way of maintaining the improved condition by some permanent arrangement. It was found that a relapse took place in Rochdale as soon as the enthusiastic pressure of the survey officials subsided. Thus the problem that still remains to be solved is how to maintain the improved condition and extend similar influences throughout Canada.

10. Probably the most interesting division of the Department is that of Medical Investigation. I referred previously to the wonderful laboratory for observation that is available through our care of ex-service pensioners. Our excellent records show the after-results of events that happened twenty to twenty-five years ago. Such data were never before available in Canada. For instance, we know the influence that amputations have on the man with this handicap. We have been able to estimate the effect of amputations upon a man's expectancy of life and we know the diseases from which he is likely to die. We have similar information in the field of tuberculosis.

One of our recent studies is an attempt to find out what has happened to the men who contracted syphilis during the war or in whom the infection was discovered on service. It is estimated that there are 16,000 of these cases out of a total enlistment of over 600,000 men. For our own information in connection with this study, we made a test survey of the first 1800 case reports. We have an index of the effect of treatment with arsphenamine and mercury. We know the percentage of those developing sequelae more definitely than any other agency could possibly know, on account of the demand for pension benefits.

The preliminary findings suggest that the treatment administered overseas, and subsequently, has prevented sequelae from developing in excess of six per cent. of the total cases infected, within a period of twenty years, and that general paralysis of the insane and tabes have developed in only three per cent. of the cases studied. We think that, as in tuberculosis, as a result of virulent infection and low resistance a small percentage of cases progress to finality and die in spite of any treatment. We also think that due to an acquired resistance there is quite a residue who would make satisfactory progress without arsphenamine treatment, and that those with a weakly positive Wassermann and no other sign *may not* be benefited by indefinitely prolonging the treatment. We suspect that

unnecessarily prolonged treatment brings on treatment sequelae. Of interest also is that our Laboratory of Hygiene has established that the toxic reaction of arsphenamine (when properly mixed for administration) is no indication of the therapeutic value on the animal or patient receiving the proper dose. It has been found that the least toxic products are followed by the desired clinical improvement.

11. The Division of Medical Investigation has charge of the medical control of sick leave for 35,000 Federal civil servants throughout Canada. We now have reports covering four years. We have most illuminating information as to the incidence and types of sickness by sex as affecting the different age groups involved. We have been able, with the whole-hearted co-operation of the civil servants themselves, to decrease the total days' annual absenteeism in the service to the value of approximately $600,000, and this without hardship. The civil servants used to be entitled to twelve days' casual sick leave in the year. When we took over supervision, this was reduced by regulation to eight days. Last year the average number of days' casual sick leave taken by the civil servants themselves, who have the right to take them on their own declaration up to eight days a year, was *1½ days*, which I think is a most remarkable showing for the service. Moreover, both employers and the civil servants themselves now come to the Medical Investigation Division for consultation as to nervous tendencies and incompatibility between themselves and their fellow-workers or those in charge. We often, with the co-operation of departmental officials, recommend the transfer of such civil servants, whose efficiency is being interfered with, to other branches, with excellent results for all concerned. This, we feel, is really a constructive, money-saving endeavour, and we think a protection to the civil servants from the very predominant ailment which used to be common among them and which we termed "civil servicitis".

12. A further field study is being participated in by the Medical Investigation Division in Manitoba in co-operation with the Provincial Department of Health and assisted financially by the International Health Division of the Rockefeller Foundation. It is a study of the morbidity incidence in the population cared for under the Municipal Doctors' scheme in that province. One of the doctors of the Division of Medical Investigation of the Department has been seconded for duty in the offices of the Provincial Department of Health in connection with this study. We should soon know what the real demands are upon hospitals and medical men in carrying out such a practice for a population of this type.

13. There have been very considerable advances made in one or two parts of our existing legislation by way of amendments. This particularly applies to the authority for increasing the control of narcotics in keeping with the conventions signed with other countries as the result of deliberations in the Committee of the League of Nations associated with this field. In passing I desire to say further that with the legislation we have enjoyed especially helpful co-operation from the wholesale and retail trade in controlling the sale of habit-forming drugs, not included in these international conventions. I have in mind as well the new

provisions of the Pharmacy Act in the provinces of Canada containing seven-elevenths of the population, for the control of codeine and barbiturates.

14. One advance this year has been in further strengthening our food and drug legislation and in adding controlling legislation in the field of cosmetics to protect the public. We always felt, up to this year, that the Federal Food and Drugs legislation of Canada was the most effective in the world. We now feel that the United States has quite overtaken us in this regard and, of course, we modelled our cosmetic legislation after studying their new authority. I have to admit, however, in the presence of Sir Arthur MacNalty, that from the knowledge I have of his new Act, if the necessary regulations are passed by his government, Great Britain will again be in the lead of all countries in this field, so far as I know.

15. The Department has abandoned two isolated quarantine stations at Grosse Isle and Lawlors Island which were difficult and expensive to operate and which it was thought were oversized, and has concentrated the hospital facilities and quarantine buildings on the mainland at the city of Quebec and the city of Halifax.

16. The Department has instituted the procedure of granting radio pratique to ships approaching Canadian ports. The captain wires his report covering health conditions to the quarantine officer, who, if satisfied with it, advises the ship directly to proceed to dock without detention for inspection, notifying the Customs authorities accordingly. The completion of the work by the officers of the Division of Quarantine and Immigration is then carried out. This has worked out very satisfactorily and results in very considerable saving of time and expense to the shipping companies.

17. The Department and its Minister have been and will continue to be very intimately concerned with the policy and progress of the new Associate Committee on Medical Research of the National Research Council. I look forward to the development of a National Institute of Medical Research.

18. Finally, it may be mentioned that the Department assumed the entire responsibility for the executive work associated with Lady Bessborough's drive under the King George V Silver Jubilee Cancer Fund for Canada. A recent report on this fund distributed to every doctor in Canada indicates that a very good use is being made of the income on the capital through the Canadian Medical Association and its ancillary association, the Canadian Society for the Control of Cancer. This drive, as a memorial for our dearly beloved Sovereign, brought forth just as splendid a return proportionately in Canada as did similar undertakings in the United Kingdom, South Africa, and Australia.

The increased undertakings of the National Health Section during the past five years are reflected in a marked increase in the net expenditures, amounting in the five years to an increase of approximately 33 per cent. For the year 1934-35 the net expenditures (estimated expenditures less estimated receipts) were $667,000 in contrast with $894,000 for the year 1939-40.

It would be helpful, if the information were available, to know the expenditures for health by the provinces, the municipalities, and the national voluntary

health agencies. Such information is not available. Probably it will be supplied in the exhaustive report of the Dominion-Provincial Commission. One of the committees of the Dominion Council of Health has been preparing a survey of provincial expenditures for public health. No data are at present available for expenditures by municipalities. In looking back at data assembled for Ontario, which formed the subject of a thesis which I prepared in 1920 as part of the requirement for the Diploma of Public Health in the University of Toronto and which findings were published in the Public Health Journal in May 1921, I find that the expenditures by municipalities, as far as recorded, totalled $1,575,438, or 60 cents per caput. I am not sure that this total included for Toronto its cost for the treatment in sanatoria of tuberculosis patients. The provincial figures available at that time did not include institutional costs. I have learned that the per caput expenditure by provincial governments for tuberculosis, including institutional care, amounted in 1936 to $2,741,000, or 25 cents per caput. The highest expenditure in any province was 60 cents per caput and the lowest 17 cents.

The total amount expended by the nine provinces in 1936 for the maintenance of mental hospitals was $7,445,000, or 68 cents per caput. The highest amount per caput paid by any province was $1.12 and the lowest 11 cents. The province with the highest per caput expenditure for the care of mental illness was second lowest in its expenditure for tuberculosis, paying only 19 cents per caput for this disease. I know that the tuberculosis program of this province is quite well balanced and meets the requirements of the modern conception of prevention. I hope sincerely that its mental disease program devotes a large proportion of the expenditure to prevention.

How long can we continue to try to plan adequate programs and hope to put forth successful requests for increased financial support when we do not know what we are really spending? Through the Dominion Council of Health and through this Association such essential information can be obtained. It seems to me that we should first define what expenditures should properly be considered expenditures by the Department of Health; what part of the costs of institutional care should be considered as public health expenditures; and finally, what social services should be included which are now carried on by other departments of municipal or provincial governments. Furthermore, we should know of the expenditures by the national voluntary health agencies and what part of these expenditures should be considered chargeable to public health. In this Association the studies which are now being conducted on municipal health administration should be extended by the employment of one or more full-time workers. Thought might well be given to the provision of scholarships or bursaries, or direct grants to the School of Hygiene, University of Toronto, to permit of additional studies being undertaken by the School of Hygiene in co-operation with the Canadian Public Health Association. Your President stands willing to help in every way possible.

Prevention of Motor Traffic Accidents*

ARTHUR H. ROWAN
Statistician, Motor Vehicles Branch
Department of Highways of Ontario, Toronto

THE problem of motor traffic accidents is relatively new but it has become in a few short years everyone's problem, for no active citizen today can avoid exposure to the hazards which are to be found on the public highways. The solution of this problem, however, is not altogether unlike the problems faced by the medical profession. Its solution requires a knowledge of the causes and an application of the known remedies. In the traffic accident field the causes have been somewhat difficult to determine, the remedies difficult to apply. But accidents nevertheless have definite causes—they do not "just happen"; and the future of the accident situation will depend upon the degree of acceptance of this fact.

We know that all accidents involve at least three factors or combinations of these factors; namely, the driver, the vehicle and the highway. It is generally recognized that the driver—because of his physical condition; his lack of knowledge, skill or understanding; or his attitude—contributes to the largest share of the accidents which occur. We know also that safer highway travel conditions are dependent upon the restraint and control exercised by all highway users. All efforts of the engineer, the legislator, the educator and enforcement agencies are directed or should be directed toward the development of this essential quality. Most people are aware of the work of the Department of Highways in providing modern, safe roadways, but it is not so clearly understood that the question as to whether or not a road is safe reverts to the individual and his attitude towards safety. The most urgent need is to develop a sense of responsibility to be safe and to safeguard others.

With this in mind the Motor Vehicles Branch has attempted to deal with this problem with both a "shot-gun" and a "rifle". We have attempted to attack it as a "wholesale" problem by making an effort to bring a greater understanding of the requirements of safety by means of the press, radio, motion pictures and other educational media and we have also attempted to deal with the accident problem as an individual problem.

As the Motor Vehicles Branch was the first public bureau in the world to make use of paid advertising as a means of promoting safer conditions, this branch of our work is fairly well known. If such efforts have not reached their full effectiveness the reason is that we have, with our limited facilities, been able to tell people what they should or should not do, but we have not been able

*Presented before the Section of Public Health Engineering at the twenty-eighth annual meeting of the Canadian Public Health Association, Toronto, June 14, 1939.

to educate to the point where we can say that the lessons have been learned and understood—which is, of course, the final measure of the value of education efforts.

I would like to deal more specifically, however, with our attempts at individual control, a part of our work which is less well known.

I mentioned that the safe operation of a motor vehicle in the presence of other vehicles and other users of the highways demands a high degree of discipline, restraint or control. The means of applying control are threefold, including control of the right or privilege of obtaining a licence; control of the right to retain the licence, and third, control of the driver on the highway. These methods of control are directed to the development of greater self-control which in the final analysis is the only control worthy of the name. The Highway Traffic Act is essentially a code of behaviour, a demand for self-control, but failure to observe the requirements of the code brings into action other forms of control. I might say at this time that our entire procedure is based on the theory that driving a car is not a right but rather a privilege, a "right to drive right", which may be withdrawn at any time.

In Ontario the Act requires that every driver be licensed and before a licence is issued the applicant is required to demonstrate that he is *capable* of driving a motor vehicle safely. We are of the belief that it is not possible at the present time, with any means applicable to an area the size of Ontario, to devise a system of examination which will show what kind of a driver an applicant will be. About the most we can learn at present is whether the applicant can operate a motor vehicle safely. Whether he will or will not will depend upon the degree of self-control and common sense he displays. If he fails to exhibit these qualities there are other means of dealing with him, but in the first instance our effort at control is limited to his capabilities. If he is apparently physically and mentally normal, displays an adequate knowledge of the rules of safe driving and demonstrates reasonable facility in the operation of his car he is granted a licence. The instructions issued to all examiners provide for a comprehensive test and that these tests are something more than perfunctory is indicated by the record of the examiners in Toronto. In 1931 about one applicant in eight was rejected, whereas the rejection rate last year was one in five. The ratio of rejections in other parts of the province will be somewhat lower because traffic conditions are less complex but we are confident that there are few of our 900,000 registered drivers of whom it may be said that they are incapable of driving safely, unless such incapacity results from psychological rather than physical condition.

The next step in driver control requires that we keep a record of his behaviour. Most people are reckless, not with any degree of malicious intent or because they have no regard for their own or others' welfare, but largely because they have never been imbued with a true sense of responsibility. If we could follow the driving habits of a man who uses his car to take him to and from his work each day, we would probably find that his manner of operation during the early period of his driving would indicate that he was quite aware of his inexperience in the presence of other vehicles and the many existing hazards. After a time, however, when he finds other cars continually overtaking him he

will come to believe that he is being hyper-careful and speeds of ten or fifteen miles an hour which seemed at first quite fast enough to cross an intersection in safety will be increased to twenty-five or thirty miles an hour. Since the very nature of motor vehicle traffic makes it possible to drive at times or for a time in a manner which is fundamentally unsafe without becoming involved in an accident, he will gradually come to the conclusion that his manner of driving leaves nothing to be desired. If his changed manner of driving causes him to become involved in an accident it does not necessarily follow that he will admit that his speed was too fast for the conditions prevailing, for the simple reason that his own experience argues against it: he has driven in the same manner for a long period without difficulty and he believes that he can do so indefinitely. Such reasoning explains why many drivers see no particular danger in driving after drinking—no particular danger in operating a car with defective tires, brakes or steering mechanism. It explains, also, why a surprising number of people, otherwise responsible citizens, drift into the extraordinary notion that laws are made for those who choose to obey them.

It is for these reasons that the Motor Vehicles Branch maintains a record file showing the accidents, convictions and complaints registered against each driver. The Highway Traffic Act requires the reporting of every serious accident by the driver involved, and the reporting by the courts of all breaches of the Act or of other laws relating to the operation of motor vehicles. Police have been requested to report all warnings to motorists for minor infractions, and the public generally have been asked to report dangerous actions they observe. From the information received from these sources, the drivers' records are compiled. Some comprehension of the success of this system may be gained from the knowledge that we now have dockets for more than 300,000 of the 900,000 drivers in the province. Each time an addition is made to a record the docket is reviewed. Accident repeaters, that is persons involved in two or more accidents, are given special attention. From the use of these records we have been able to isolate many cases involving drivers lacking the physical condition, skill or attitude necessary for safe driving.

The Minister of Highways is vested with authority to suspend or revoke a drivers' licence or motor vehicle permit for any reason deemed sufficient. This is a very arbitrary authority but we believe that it has been used reasonably and fairly. Indeed, the Department is frequently criticised for not making more frequent use of this provision of the Act, but it must be remembered that rules cannot be laid down that so many accidents or convictions will result in loss of licence. Each case must be considered individually and among other factors the question of exposure to hazard must be kept in mind. The record of the doctor, salesman or other person who travels a large number of miles each year cannot be considered on the same basis as that of the clerk or farmer who travels a much smaller number. In the majority of cases the records indicate the need for instruction, but in more flagrant cases use is made of the Minister's power to revoke driving privileges. In 1938 there were 792 suspensions for various periods applied by the Department under this one section of the Act. All these cases are given full and individual consideration after all available information

has been obtained, our objective at all times being to protect the public generally, while avoiding any injustice to the individual.

Not only are we dealing with cases involving accumulated records, however, since 1935 drivers in the higher age groups—that is, above 65 years—and drivers who have less than a year's driving experience, if involved in a reportable accident, have been required to submit to vision and driving tests and in some cases, physical examination. The same regulation is applied when a driver is involved in a fatal accident. In the case of the older drivers the purpose of the examination is to permit us to ascertain the driver's knowledge of present-day driving and to determine whether he has suffered any physical deterioration which might affect his operation of a car. In the case of the inexperienced driver it is also our purpose to impress upon him that his record is under constant scrutiny. A fatal accident frequently results in severe shock to the driver concerned, and our aim in requiring re-examination is to find out, among other things, whether the operator suffers from any shock or nervousness that might affect his driving. In many cases the Department has found it necessary to withhold the licence until the driver has recovered from the effects of the accident.

Another attempt at driver control is through the operation of the Financial Responsibility Law which was enacted in 1930. This is a very important provision in our law, but I shall deal with it very briefly. When a driver is convicted of certain offences under the Highway Traffic Act or the Criminal Code the report of the conviction, as in all cases, is forwarded by the court to the Motor Vehicles Branch. The driver, as the result of his conviction, is notified that his licence and registration plates are suspended pending the filing of proof of financial responsibility. That means proof of his ability to respond to a claim for damages resulting from the operation of a vehicle to the amount of $11,000. The usual method of filing proof is by an insurance certificate showing insurance for public liability and property damage. The applicant frequently finds that insurance companies are reluctant to accept his application for a certificate. He is consequently brought to realize very quickly that his chance of regaining and retaining his licence and markers depends entirely upon the degree of self-control he exercises, and he knows that his record is not only under scrutiny by the Department but also by the insurance company, whose good will he must retain if he is to keep his licence. Under these circumstances the lesson is usually learned twice and is not soon forgotten.

The judgment debtor who fails to satisfy a judgment for damages occasioned by a motor vehicle also comes within the provisions of this part of the Act. When the Branch is notified of such failure to satisfy a judgment, the licence and permit are immediately suspended until arrangements are made for payment, and the debtor must also file proof of responsibility before his driving privileges are reinstated. This is a most important provision for the protection of victims of accidents, and has resulted in the payment of many thousands of dollars to injured persons who might otherwise have never received any compensation for the injuries or damage suffered.

One of our more difficult problems in the control of drivers is the physically or mentally defective individual. In so far as physical impairments are con-

cerned the standards of the Department are very rigid. Those suffering from more obvious defects are permitted to drive only if they can satisfy the Department of their ability to compensate for their disabilities by the use of various mechanical devices or by application of unusual care. Our methods of dealing with less obvious impairments such as epileptics or mental cases have been considerably strengthened in recent years by an arrangement for increased co-operation between the Department of Highways and the Department of Health. It has always been our rule and our aim to refuse a licence to anyone suffering from epilepsy. This disease is most difficult to detect and for various reasons family physicians are often reluctant to report such cases. Under existing arrangements when a patient is treated for this cause at any of the Ontario Hospitals or when a patient is released in a condition which renders him unfit to drive, a report is forwarded to the Motor Vehicles Branch and such person is prohibited from obtaining a licence until a certificate from the hospital states that he has regained a normal condition. Reports from other sources, with regard to physical or mental condition, are also given thorough investigation. Some people are somewhat reluctant to furnish the Department with information of this nature although it is our feeling that there should be no more hesitation in doing so than in reporting a burglary or fire to a police or fire department.

To this point I have referred to the aids to control which we in the Motor Vehicles Branch are endeavouring to exercise. It is perhaps unnecessary to say that the whole problem of discipline is far from being a simple one. Like every problem involving human relationships, it is extremely complicated, and when that relationship involves not only the human factor but also a very mobile mechanical factor it becomes even more complicated.

With this in mind it is perhaps unnecessary to make apologies for the lack of perfection in our methods, a lack which is evident from our accident record. In each month of the past three years an average of 54 persons have been fatally injured and about 1000 injured in Ontario in addition to a tremendous property damage loss. The death rate from motor vehicle accidents is in ninth position among the causes of deaths in this province. Since the Motor Vehicles Branch was made the central bureau for the collection, compilation and analysis of accident statistics and records we have been able to gain a better understanding of accidents and how, when and why they happen. It must be remembered that as in other problems we must get the facts, which is by no means a simple job, and we must find a means of applying the remedies, which is a separate and equally difficult part of the problem. While probably the best way of obtaining the data is through a central bureau such as has been established in Ontario, the degree of effectiveness can be determined by the interest of the public and the interest and support of official bodies throughout the province, whose closeness to the situation enables the application of proper preventives. Mass statistics and theory have their place in this problem but there is a great need for factual knowledge and actual experience and local authorities, with the co-operation of the public, must accept a greater responsibility for the application of remedial measures. Very few communities in Ontario have developed anything in the way of a planned program for accident prevention, but those which have done so have shown definite improvement in their accident records.

Survey of Control Measures in Highway Accidents in Canada*

J. T. PHAIR, M.B., D.P.H.
Chief Medical Officer of Health, Province of Ontario

THE importance of the problem of highway accidents led the Dominion Council of Health, which is the advisory body to the Department of Pensions and National Health, Canada, to appoint a committee to obtain data for the purpose of learning what responsibilities are presently being assumed by health departments, the existing responsibilities of other government departments, the nature of control measures, and the present practice in regard to the reporting, statistics, and research on highway accidents. A questionnaire was sent to the various departments of the provincial governments. Replies were received from British Columbia, Alberta, Manitoba, Ontario, New Brunswick, Nova Scotia, and Prince Edward Island.

In no province has the provincial department of health assumed specific responsibility. In Ontario the Department of Health co-operates with the Department of Highways in reporting mental cases discharged from Ontario Hospitals in order that precautions may be taken by the latter department. The Department of Health also gives assistance in making decisions as to whether persons with physical defects (either applicants for licences or persons with accident experience) are fit to drive or not. The Health Department's function is therefore concerned with medical decisions.

The various provincial departments of health have no *primary* responsiblity in relation to the control of highway accidents. Any functions now performed are either incidental to broader responsibilities or are undertaken on the basis of interdepartmental co-operation, dependent upon a recognition of the contribution which the department of health can make wherever a medical problem arises.

Responsibilities or Functions of Other Government Bodies

In British Columbia the Attorney General's Department, through the Motor Vehicles Branch of the Provincial Police, administers the Motor Vehicles Act. The Department of Public Works and the Motor Vehicles Branch administer jointly the Highways Act. These two acts are respectively concerned with the maintenance and construction of highways and with traffic on highways (including accident reporting).

In Alberta responsiblity is assumed under the Vehicles and Highway Traffic Act and its regulations and provision is made for the collecting of accident reports. The Accident Prevention Branch of the Department of Labour,

**Abstract of a report presented at a meeting of the Dominion Council of Health held in Ottawa on June 15, 1939.*

Manitoba, investigates serious accidents and collects accident statistics. Police reports are made to this branch.

In Ontario the Attorney General's Department is concerned with the enforcement of traffic regulations. The Department of Highways is concerned with the building and maintenance of safe highways and with the engineering aspects of highway accidents. This department is concerned also with public education, enforcement of regulations, and the collection and publication of statistics. The department is also concerned with the control and detection of bad drivers. The provincial police are required to report accidents, and coroners their findings. All magistrates report convictions for traffic offences. The Department of Education has undertaken safety education in schools through a new course in health and safety training.

In New Brunswick the Department of Public Works, through the Motor Vehicles Branch, receives reports on accidents, investigated by the Royal Canadian Mounted Police and traffic officers. In Nova Scotia the Department of Highways, Motor Vehicles Branch, conducts similar investigations and makes recommendations to the Engineering Department in regard to changes in road construction, etc. In Prince Edward Island the Department of the Provincial Secretary assumes similar responsibilities, discharging these through the Attorney General, the Royal Canadian Mounted Police, and the Department of Highways.

CONTROL MEASURES IN HIGHWAY ACCIDENTS

In British Columbia the Motor Vehicles Branch of the Provincial Police enforces speed limits, maintains a highway patrol, and makes a rather rigid examination of applicants for driver's licences, including a written test and a limited physical test (hearing, vision, reaction time), which is required of all drivers in the province.

The Vehicles and Highway Traffic Act (Section 93) in Alberta provides for the suspension of licences in specific circumstances. Educational bulletins are distributed. In Manitoba all highway traffic accidents covered by legislation are investigated by the police. Accidents are reported to the Accident Prevention Branch of the Department of Labour and the Department of the Attorney General. Control over public service vehicles is exercised by the Public Utility Board.

In Ontario the control measures relate to the obtaining and retention of licences, the control of the driver on the highway, and self-control. The Highway Traffic Act deals with the obtaining and retention of a licence and this responsibility is discharged by the Department of Highways. Examinations are conducted. The police exert control over the driver on the highway. The Department of Highways and the Department of Education both undertake education as a measure of "control of the individual".

In the Maritime provinces patrols by the Royal Canadian Mounted Police and traffic officers are maintained and drivers are licensed. Licences are suspended for various causes, including involvement in fatal accidents.

In addition to such control measures by departments of government, the municipal police enforce speed limits in British Columbia. In Alberta local voluntary safety organizations function. In Ontario the Ontario Safety League takes an active part. Municipal bodies in large urban centres have definite provision for the care of school children going to and from school. Traffic schools are held in certain municipalities by the local police, partly on a voluntary and partly on a compulsory basis. Educational work is well advanced in the schools of certain municipalities. In New Brunswick education programs are conducted by voluntary groups, the Automobile Association and the Safety League.

All the provinces require the reporting of highway accidents, but the requirements vary as to the accidents which should be reported. Prince Edward Island and Alberta require that all accidents causing injury to person or property must be reported to the police. In all the provinces accidents involving personal injury and death must be reported to the police. Accidents involving property damage only have limits set, varying from twenty-five dollars in British Columbia and Manitoba to fifty dollars in Ontario, New Brunswick, and Nova Scotia.

In regard to the collection, preparation, and publication of accident statistics, the data received are presented in table I.

TABLE I

DEPARTMENTS OF GOVERNMENT RESPONSIBLE FOR COLLECTING REPORTS AND FOR PREPARING STATISTICS

Province	Directly Responsible for		Annual Report giving Accident Statistics
	Collecting Reports	Preparing Statistics	
British Columbia	Motor Vehicles Branch, Attorney-General's Dept.	Motor Vehicles Branch of Provincial Police	Yes
Alberta	Motor Licence Branch	R.C.M.P. and City Police	No
Manitoba	Accident Prevention Branch, Dept. of Labor	Accident Prevention Branch	Yes
Ontario	Accident Recording Division, Motor Vehicles Branch, Dept. of Highways	Accident Recording Division, Dept. of Highways	Yes
New Brunswick	Motor Vehicles Branch, Dept. of Public Works	Motor Vehicles Branch, Dept. of Public Works	Yes
Nova Scotia	Motor Vehicles Branch, Dept. of Highways	Motor Vehicles Branch, Dept. of Highways	Yes
Prince Edward Island	R.C.M.P. or other Police	R.C.M.P.	No

In table II a summary of the accident experience in the provinces replying to the questionnaire is presented for the five-year period 1934-38.

TABLE II

ACCIDENT STATISTICS BY PROVINCES
1934–1938

Number of Accidents

	1934	1935	1936	1937	1938
British Columbia	3,192	3,612	4,289	5,276	5,073
Alberta	3,195	3,549	3,943	4,944	5,164
Manitoba			1,679	2,381	2,966
Ontario	9,645	10,648	11,388	13,906	13,715
New Brunswick	453	558	669	1,047	1,040
Nova Scotia*	1,314	1,283	2,306	2,452	2,204
Prince Edward Island	226	225	180	215	320

Number of Deaths

	1934	1935	1936	1937	1938
British Columbia	78	90	102	122	102
Alberta	56	72	45	61	64
Manitoba		59	54	66	78
Ontario	512	560	546	766	640
New Brunswick	48	40	38	64	55
Nova Scotia	45	53	54	95	75
Prince Edward Island	7	5	6	7	7

Number of Persons Injured

	1934	1935	1936	1937	1938
British Columbia	1,855	2,046	2,525	2,724	2,464
Alberta	712	612	591	551	512
Manitoba		951	1,625	1,753	1,657
Ontario	8,990	9,839	10,251	12,092	11,683
New Brunswick	294	335	367	519	578
Nova Scotia*	973	937	1,288	1,307	1,088
Prince Edward Island	?	?	?	?	?

*Change in legislation and better reporting in 1936 et seq.

FACTORS IN HIGHWAY ACCIDENTS

Information was requested concerning "repeaters" in accidents (accident proneness), discoverable physical defects, and the nature of injuries sustained in fatal and non-fatal accidents. No data concerning "repeaters" in highway accidents are collected in British Columbia, Alberta, New Brunswick, Nova Scotia, and Prince Edward Island. In Manitoba the system which is now being employed will provide such information. In Ontario the Accident Recording Division of the Department of Highways has found that from September 1930 to the end of 1937, 8,639 of the 107,703 drivers (8 per cent.) were involved in 18,824 accidents, representing 25 per cent. of the 75,409 mishaps reported. Similarly, no data regarding discoverable physical defects in relation to highway accidents are being collected at present in Alberta, New Brunswick, and Prince Edward Island. In British Columbia such information is being made available as a result of the new tests for driver's licences. In Manitoba notations are made on accident reports and are summarized. Physical defects so reported are found

to play a very small part in the occurrence of accidents. In Ontario the Accident Recording Division of the Department of Highways found that 110 drivers out of 19,906 involved in accidents had some physical defect (1938 data).

Only two of the provinces reporting had data concerning the nature of the injury sustained in fatal and non-fatal accidents. The nature of injuries sustained in motor accidents in 1938 in British Columbia and Ontario is presented in table III.

TABLE III

NATURE OF INJURIES SUSTAINED IN MOTOR ACCIDENTS
ONTARIO AND BRITISH COLUMBIA, 1938

Nature of Injury	Ontario		British Columbia	
	Fatal	Non-fatal	Fatal	Non-fatal
Fractured skull	321	244	36	25
Fractured spine	51	52	1	0
Other fractures	74	1,722	17	258
Concussion of brain	11	275	1	41
Severe general shock with bruises and cuts	10	5,287		393
Slight shock and shake-up		2,234	2	900
Internal injuries	152	178	9	17
Other injuries (sprains, dislocation, etc.)	1	477	2	533
Cut by glass (only)	2	1,201		153
Drowned	9		8	
Burned	9	12		1
Asphyxiated				
Not stated		1	26	143
Total	640	11,683	102	2,464

SUMMARY

The data supplied by seven of the provinces serve to indicate in a general way at least some of the essentials of the present organization and efforts in the field of highway accident control. Variations in procedure, practice, and policy among the provinces are evident. Accident reports are not comparable in some instances because there is variation in the description of what accidents are reported.

The Organization of a Public Health Nursing Service*

EDNA L. MOORE, REG.N.
Chief Public Health Nurse
Department of Health of Ontario, Toronto

SINCE the Province of Ontario is the field of activity with which I am most familiar, what I shall say is conditioned by that fact while influenced somewhat by visits to centres outside Ontario and through association with services in other parts of Canada and in the United States. The scope of my remarks will be limited to official agencies although, in the main, the underlying principles are applicable to all public health nursing services. The significant difference is that official services are under the direction of the constituted health authorities.

Consulting the dictionary we read that *organization* "is the *machinery* that forms into a whole interdependent or co-ordinating parts for harmonious or united action". Machinery and action imply the recognition of a need and a possible means of supplying it. Our subject, the organization of a public health nursing service, then implies a recognized need for public health nursing service in the development of community health work and a body of workers prepared to assist in meeting this need.

Doctor Atwater has outlined the contribution of public health nursing** and has showed that it meets a need. Then, too, for a number of years in several Canadian and many American universities, courses in public health nursing have attracted many graduate students. Therefore, I shall present what I consider the most important steps in the organization of public health nursing services under official auspices.

The need must be known in terms of measurable factors. What is the number of births, stillbirths, premature births, and infant and maternal deaths in the past five years? How many infants died during the first day, the first week, and the first month of life? What were the conditions of prenatal, delivery, and post-partum care for the women who died from causes connected with pregnancy and childbirth? What provision is made for the care of prematurely born infants? How many deaths from tuberculosis were there in the past five years and of these how many were known to the health department before death? How many diagnosed cases of tuberculosis are known to the local health department at present and does the number compare favourably with the yardstick of five reported cases for each death, taking the average for three years? How many cases of tuberculosis are known to need sanatorium care

**Presented before a joint session of the Section of Public Health Nursing and the Section of Vital Statistics and Epidemiology during the twenty-eighth annual meeting of the Canadian Public Health Association, Toronto, June 14, 1939.*

***Atwater, Reginald M.: The Place of the Public Health Nurse in a Community Program. Canad. Pub. Health J., 1939, 30: 278.*

but have not been persuaded to accept it? Meanwhile how many children and adults are exposed to infection? What is the nutritional status of the child population? Do means exist to discover this information? What is the situation with respect to the control of communicable disease? Do the citizens understand their part in securing protection and in co-operating in keeping quarantine? How many school children are there in the community and under what hygienic conditions are they compelled to spend at least the greater part of eight years? This is not a complete list but it will serve our purpose. On the other side of the page we should set down the resources available in consultative and field service from federal and provincial departments such as sanitary surveys, chest clinics and mental health clinics, and advisory public health nursing service, from non-official agencies such as the Canadian Tuberculosis Association, the Canadian National Institute for the Blind, the Canadian Red Cross Society, and the Ontario Society for Crippled Children. In the local field it is usual to find an interest in the Children's Aid Society, the Red Cross, or the societies for the crippled or the blind; and whatever the interest, if related to health it can be developed provided the connection is made clear. Every interested person is a potential strength.

While a survey of community health conditions is under way the education of those concerned should receive attention. The first approach would be to the members of the Board of Health and the members of the appropriating body. The second line of approach would be to the local health committees of the medical, dental and nursing associations in the area, the elementary and secondary school inspectors, the health committee conveners of Women's Institutes, Home and School Associations, Red Cross branches, the Imperial Order of the Daughters of the Empire, the Catholic Women's League, and service clubs—to name a few: Rotary, Kiwanis, Kinsman, Lions, and Gyro. A statement of Mrs. Helen Cody Baker, an outstanding authority on the interpretation of social work who visited Toronto last year, has special application here: it was "to improve interpretation for the inner circle 150 per cent. before beginning to bother about the general public." Those that I have indicated are the inner circle. Each has a circle of friends and the sum total of the friends will make an influential group in the general public. And how shall they be educated? By individual contact, by group meetings, through the distribution of authoritative literature, chiefly in pamphlet and reprint form if we want it read, by suggesting good speakers for meetings and in the case of the professional groups by direct approach.

A health committee made up of representative men and women carefully chosen can give substantial support to the Board of Health through consultation with its members and interpretation of its findings and proposals to their fellow taxpayers.

Judging the need from the facts that have been gathered, plans for the public health nursing service may be considered. Fortunately yardsticks have been developed with respect to public health nursing personnel and these will assist in computing the requirements. One public health nurse to each 4000 of

population uniformly throughout Ontario would be cause for rejoicing indeed. Yet in 1937 Sweden was reported to have one public health nurse to each 3000 of its people, rural as well as urban. Another standard relates to school population wherein one public health nurse is provided for every 1000 rural children or 1400 urban children.

Generalized public health nursing is the type of service suggested. This means service to all age groups in the community for every health need, with bedside nursing care limited to demonstrations and emergency cases when a physician has been called or is in attendance.

Teaching to groups of expectant mothers and mothers of infants and young children is a recognized time and effort saving practice in the public health nursing field. The same teaching can be given to six or more mothers at one time, while to visit this number and give individual teaching would require many hours. In rural communities where health centres are not organized teaching in the farm kitchen may be done to advantage. Classes in home hygiene and care of the sick offer wide opportunities in health education and are particularly advantageous at the beginning of a program as they serve to introduce the service to the community.

In the preparation of the budget the following items should be included:

Quarters: Provision must be made for an office and for health centres. Frequently space can be found in municipal or county buildings but renovation is usually necessary to secure adequate heat and light as well as satisfactory sanitary facilities. Janitor service of a standard compatible with the objectives of the health program should be provided.

Equipment: Office furniture, telephone, demonstration material, nursing bags, scales, and such other essential equipment must be provided.

Supplies: Records, thermometers, postage and stationery, etc.

Education, community and staff: Provision should be made for the distribution of literature, the preparation of a bulletin, attendance at refresher courses, and the purchase of books to form the nucleus of a small health library.

Transportation: Bus or street car tickets, bicycle, or car with maintenance. Much has been said and written on the question of car ownership. Some agencies prefer to own and maintain cars, while other agencies prefer to pay maintenance for cars owned by the staff.

Salaries: In determining any initial salary consideration should be given to the time and cost of preparation for the work involved. In public health nursing three years are required for the basic course and at least one year at a university. The salary range for supervisor and staff nurse should offer the possibility of reward for services rendered. An annual increase based upon satisfactory service until a reasonable maximum is reached has received the approval of experienced administrators.

The reason for putting salaries last is that little in the way of results can come of having a worker in the field without tools.

With an informed, influential group to support them, the Board members are ready to present the budget to the finance committee or council. This is the

time to beware of extravagant claims as to lowered death rates or the immediate reduction of communicable disease. These results and far more are possible under certain conditions and given time, but they are long-range objectives. Then, too, things have a way of going contrary and next year might bring an epidemic that would demand time from the planned activities and greatly change the picture by the end of the year. Given reasonable support for a sound program over a period of years, improvement in the general health of the community can safely be predicted. For presentation to this group the general objectives of public health nursing as stated by such an organization as, for instance, the National Organization for Public Health Nursing, would serve. These objectives are: to assist in educating individuals and families to protect their own health; to assist in correlating all health and social programs for the welfare of the family and community and to assist in educating the community to develop adequate public facilities.

There is no reason to be discouraged should the requested appropriation be reduced. Knowing the amount available, the program may have to be reconsidered and adjustments made, including a reduction in the personnel. Since the service offered is one for which the people have no standard of measurement, its sponsors are doubly responsible that the quality of service shall be good. Honesty demands that the professional workers attempt no more than can be done well without explaining in detail to the Board and Advisory Committee the degree of curtailment necessary in the service.

It goes without saying that only fully qualified public health nurses should be engaged and where two or more nurses are engaged one should possess wider experience and more advanced preparation to fill the post of senior nurse, supervisor or director of nursing. Such an administrative plan is necessary for the maintenance of proper standards in nursing procedures, good relationships with other workers and desirable esprit de corps. Moreover, it greatly conserves the time of the medical officer of health for matters that he alone can deal with.

In my opinion an attractive uniform is advantageous to both nurses and community. The uniform should conform to the fashion of the day sufficiently to ensure a smart appearance without the sacrifice of utility.

Forty hours a week is the average working time, allowing one half day off and Sunday. When classes or conferences are held at night—frequently this is necessary—or for other reasons overtime is unavoidable, some plan should be made for adjustment, preferably on the following day. A vacation period of one month after eleven months' service is a reasonable provision for the maintenance of health among the staff members. The plan to allow a long day on Saturday once a month instead of the regular half day with three weeks' vacation has much in its favour. To be sure, someone must be on call on Sunday and holidays and this duty is usually rotated. On a small staff where it comes frequently to each member some compensation should be provided.

The program as it touches medical and dental problems should be discussed with the groups concerned and standing orders for the guidance of the nursing staff should have their approval. With the advances in scientific knowledge, it

would be well to have discussion and renewed approval every two years. Rules for procedure should be the expression of principles.

In a generalized public health nursing program the division of time among the various phases should be according to the need and the policy adopted by the Board. If some outstanding need exists it might be made the focus of attention for two or three months. Close study of daily performances and monthly case counts make possible the development of a balanced service to the community. Care must be taken to avoid a routinized service. Good judgment in departing from routine to give the service that is needed is the acid test. For example, a young mother with her first baby may profit more from daily visits for a week than she could from the same number spaced over months. A newly diagnosed case of tuberculosis usually requires frequent visits, particularly if the patient is apprehensive and the family anxious and depressed. In the last analysis the responsibility of health workers—and nurses make up the largest group—is to bring to every problem all the scientific knowledge and resources available for its solution and, having explained them in simple terms, to leave the decision to the family.

If a visiting nursing association is serving the community, policies for co-ordinating the services should be developed by discussion and active co-operation. Practical means for referring cases in writing save misunderstandings. Joint efforts in staff education contribute to the good of staff members as well as the community.

Regular staff meetings provide the opportunity for each member of the staff to contribute to the program as a whole through the pooling of experiences in the field and the discussion of the approach to and method of dealing with different situations.

In newly organized districts it is usual for the nursing staff to discover social problems. Public health nurses are as a rule the first full-time professional community workers to follow the teachers, and too often the solution of every problem in the community is thought to be their responsibility. It is true that many social problems can readily be referred to the proper source by the nurse while others are either too complicated or too vague for such disposal. All such conditions should be fully described in writing and passed to the medical officer of health by the senior nurse. With an accumulation of reports pointing to definite problems existing in the community, the medical officer of health is enabled to present them to the Board with a reasonable hope of securing action. If, however, the account is not written it remains beyond the hope of constructive action.

Each member of the staff shares the responsibility for interpreting the service to the members of the community. It is inevitable that every one identified with the work will interpret it in one way or another to outsiders. Consequently, there should be no doubt as to the ability of each member to give a clear explanation of the program. The staff meeting would be a proper setting for rehearsals.

It is customary in business and elsewhere to take stock annually. The

purpose of stock-taking is to know the status of the undertaking, whether the year's operations show a gain or loss, and to study methods and revise them as the situation indicates. In health work the annual report and the annual meeting provide such an opportunity. They offer other opportunities, namely that of interpreting the health needs of the community, the way in which the program has served to meet them, and what is proposed for the coming year with practical suggestions for citizen co-operation.

The presentation of an annual report by the staff implies responsibility on the part of Board and committee members to read, study and question it and to comment upon its contents. Failing to exercise this right, they can scarcely be held to represent the community in the safeguarding of health.

Instead of measuring success in terms of dollars and increased customers the health worker uses as his standard such things as: the number of families who regularly consult their family physician and dentist, evidences of improved health practices among preschool and school children, and increasing numbers protected from certain communicable diseases, increased numbers of parents coming to school or health centre to discuss health problems, an increased proportion of cases admitted to sanatorium in the early stages of tuberculosis and decreased intervals between the diagnosis of tuberculosis and admission to sanatorium. There are other factors but these will suffice for illustration.

Efficient organization and a capable qualified staff make for satisfactory service. Neither can compensate for lack in the other and without strict attention to both there will be waste of talents, time, and tax-collected funds.

A Study of Goitre in Saskatoon, 1938

GRIFFITH BINNING, M.B.
Medical Director, Saskatoon Public Schools, Saskatoon, Sask.

IN 1934 we reported a study[1] of the incidence of goitre in 5,808 Saskatoon public school children. Following the survey the incidence was drastically reduced by the administration of iodine in various forms. This past year a marked increase was again noted in certain outlying schools. These were investigated, together with two central schools which were used as controls. Because our central schools had an incidence of 4.8 per cent. as compared with 8 per cent. in our outlying schools, we did not survey all the children. The incidence in 1934 was 12.3 per cent. A total of 166 cases was found in 2,451 examinations.

It is interesting to note that co-incident with the increase in our schools there was an increase in the number of thyroidectomies performed at the Saskatoon City Hospital; namely, 68 in 1935, 71 in 1936, and 85 in 1937.

Severity

As in the previous study, we divided the cases into four groups: "slight", those just palpable and probably physiological; "moderate", easily palpable and usually easily visible; "large", those which were very large and probably would not respond to medical treatment; and "toxic", with hyperthyroidism. The incidence of goitre in the surveys of 1934 and 1938 is presented in table I, according to severity.

TABLE I

INCIDENCE OF GOITRE IN SURVEYS OF 1934 AND 1938 ACCORDING TO SEVERITY

Severity	1934 (5805 children) Number of Cases	1938 (2451 children) Number of Cases
Slight	504 (70.1%)	137 (82.5%)
Moderate	212 (29.5%)	28 (16.8%)
Large	2 (0.2%)	1 (0.6%)
Toxic	0	0
	718	166

Influence of Sex

While more girls than boys had goitre, particularly in the "moderate" and "large" groups, the difference was not so striking as four years ago, due to the larger relative number of boys with "slight" goitres. However, the incidence among boys was definitely less than among girls, being 5.7 per cent. for boys and 8.1 per cent. for girls. These findings are presented in table II.

[1]*Canad. M. A. J., 1935, 32:533.*

TABLE II

INCIDENCE OF GOITRE IN SURVEYS OF 1934 AND 1938
ACCORDING TO SEVERITY AND SEX
Per cent. Distribution

	1934			1938		
	Male	Female	Total	Male	Female	Total
Total students	51.0	40.0	100	53.8	46.2	100
Incidence per 100 students	8.9	15.9	12.3	5.7	8.1	6.7
As to severity:						
Slight	27.8	42.3	70.1	39.8	42.7	82.5
Moderate	8.9	20.6	29.5	4.8	12.0	16.8
Large	0.1	0.1	0.2	0	0.6	0.6
Total	36.8	63.0	100	44.6	55.3	100

Influence of Age

The maximum number of goitres occurred at 12 years (10 per cent.), when the maximum number of "slight" goitres occurred, but the highest incidence was at 16 years, when 5 out of 43 children had goitre (11 per cent.). This closely follows the experience of 1934 (table III).

TABLE III

INCIDENCE OF GOITRE IN SURVEYS OF 1934 AND 1938
ACCORDING TO AGE

	Total Students		Slight		Moderate		Large		Total	
	1934	1938	1934	1938	1934	1938	1934	1938	1934	1938
6 years	315	153	10	0	1	0	0	0	11	0
7 years	516	307	29	12	1	0	0	0	30	12
8 years	641	279	31	10	6	1	0	0	37	11
9 years	638	291	44	15	15	1	0	0	59	16
10 years	657	249	54	13	22	4	0	0	76	17
11 years	709	282	88	19	31	2	0	0	119	21
12 years	733	255	83	23	35	2	0	0	118	25
13 years	659	246	74	18	40	6	0	0	114	24
14 years	546	204	56	14	32	10	1	0	89	24
15 years	233	113	22	8	20	1	1	1	43	10
16 years	71	43	8	4	7	1	0	0	15	5
17 years	23	23	28	1	1	0	0	0	3	1
18 years	4	5	12	0	1	0	0	0	2	0
19 years	1	1	1	0	0	0	0	0	1	0
20 years	1	0	1	0	0	0	0	0	1	0
24 years	1	0	0	0	0	0	0	0	0	0
	5808	2451	504	137	212	28	2	1	718	166

Race

As in the survey of 1934, the marked influence of racial origin is seen (table IV). While the school population throughout the city has lessened somewhat, the proportions of races remain much the same for the city as a

TABLE IV—INCIDENCE OF GOITRE IN SURVEYS OF 1934 AND 1938 ACCORDING TO RACE

TABLE IV—Incidence of Goitre in Surveys of 1934 and 1938, According to Race

					Slight		Moderate		Large		Total		Incidence per hundred students of that race*		
	1934	%	1938	%	1934	1938	1934	1938	1934	1938	1934	1938	1934	1938	
Austrian	23	0.3	5	0.2	4	0	3	0	1	0	8	0	34.7	9.0	D
Ukrainian	380	6.5	276	11.2	64	26	50	10	1	0	115	36	30.2	13.0	D
Polish	42	0.7	28	1.1	6	5	5	3	0	1	11	9	26.1	32.1	I
Russian	93	1.6	42	1.7	14	4	8	1	0	0	22	5	23.6	11.9	D
Dutch	67	1.1	25	1.0	7	2	6	0	0	0	13	2	19.4	8.9	D
German	264	4.5	134	5.4	36	12	14	2	0	0	50	14	18.9	10.4	D
French	91	1.5	24	0.9	8	0	6	0	0	0	14	0	15.3	0.0	
Swedish	60	1.0	29	1.1	8	4	0	0	0	0	8	4	13.3	13.9	I
Greek	46	0.1	0	0.0	4	0	2	0	0	0	6	0	13.0	9.0	
Jewish	93	1.6	10	0.4	11	0	1	0	0	0	12	0	12.9	0.0	
American	87	1.4	52	2.1	7	3	3	3	0	0	10	6	11.5	11.5	
English	2394	41.2	791	32.2	189	14	55	3	0	0	244	17	10.1	2.2	D
Norwegian	90	1.3	39	1.6	7	1	2	0	0	0	9	1	10.0	2.5	D
Canadian	440	7.5	377	15.3	29	26	12	4	0	0	41	30	9.2	7.9	
Irish	491	8.4	140	5.7	31	6	14	0	0	0	45	6	9.1	3.5	D
Scottish	979	16.8	323	13.1	66	11	24	1	0	0	90	12	9.1	3.7	
Danish	30	0.5	24	0.9	2	1	0	0	0	0	2	1	6.6	4.1	
Welsh	67	0.0	24	0.9	4	0	3	0	0	0	7	0	10.4	0.0	
Manx	0	0.0	2	0.08	0	0	0	0	0	0	0	0	0.0	0.0	
Icelandic	5	0.08	5	0.1	1	1	0	0	0	0	1	1	20.0	20.0	
Belgian	1	0.01	1	0.04	1	0	0	0	0	0	1	0	100.0	0.0	
Hungarian	14	0.2	10	0.4	0	0	1	0	0	0	1	0	7.1	0.0	
Czechoslovak	0	0.0	7	0.2	0	1	0	0	0	0	0	1	0.0	14.2	
Ruthenian	1	0.01	1	0.04	1	0	0	0	0	0	1	0	100.0	0.0	
Galacian	2	0.03	2	0.08	0	0	0	0	0	0	0	0	0.0	0.0	
Italian	5	0.08	7	0.2	0	1	1	0	0	0	1	1	20.0	14.2	
Mennonite	0	0.0	64	2.6	0	18	0	1	0	0	0	19	0.0	29.6	
Negro	7	0.1	3	0.1	1	1	2	0	0	0	3	1	42.8	33.3	
Indian	1	0.01	2	0.08	0	0	0	0	0	0	0	0	0.0	0.0	
Swiss	7	0.1	4	0.1	0	0	0	0	0	0	0	0	0.0	0.0	
Chinese	4	0.07	0	0.0	2	0	0	0	0	0	2	0	50.0	0.0	
Doukhobor	4	0.07	0	0.0	1	0	0	0	0	0	1	0	25.0	0.0	
Armenian	1	0.01	0	0.0	0	0	0	0	0	0	0	0	0.0	0.0	
Spanish	1	0.01	0	0.0	0	0	0	0	0	0	0	0	0.0	0.0	
Syrian	2	0.03	0	0.0	0	0	0	0	0	0	0	0	0.0	0.0	
Portuguese	2	0.03	0	0.0	0	0	0	0	0	0	0	0	0.0	0.0	
Bohemian	2	0.03	0	0.0	0	0	0	0	0	0	0	0	0.0	0.0	
Roumanian	2	0.03	0	0.0	0	0	0	0	0	0	0	0	0.0	0.0	
	5808	100.0	2451	100.0	504	137	212	28	2	1	718	166	12.3	6.7	

*D = decrease, I = increase over previous survey.

whole, except for the influx from the north of a number of Mennonite families. In this last survey we find marked decreases in the number of English, Scots and Irish students, while there is a relative increase in those of Ukrainian, Polish, German, and Canadian origins. It may be remarked here that in spite of much effort to discover the real origin of many Canadians we are forced to classify 15.3 per cent. of students whose grandparents were born in this country as "Canadians".

The incidence of goitre, while much higher amongst the Ukrainians, Russians, Dutch, and Germans than amongst those of non-central European origin, and in spite of a recent increase, showed a decrease from the previous survey. This we flatter ourselves is due to the preventive work done during the past four years. Several small groups showed slight increases—namely, the Poles and the Swedes. The Mennonites, of whom we had none in our last survey, had a high incidence of goitre.

Social Conditions

The marked influence of social conditions on the incidence of goitre is shown in table V. In the 1938 survey the percentage of those in classes of

TABLE V

INCIDENCE OF GOITRE IN SURVEYS OF 1934 AND 1938
ACCORDING TO SOCIAL CONDITION

Social Condition	Number of Persons		Goitre		Slight		Moderate		Large	
	1934	1938	1934	1938	1934	1938	1934	1938	1934	1938
A	595(10.2%)	30(1.2%)	31(5.2%)	0	24	0	7	0	0	0
B	1552(26.7%)	938(38.2%)	116(7.0%)	15(1.6)%	86	14	30	1	0	0
C	2092(36.0%)	763(31.2%)	261(12.4%)	47(6.1%)	197	36	63	11	1	0
D	1569(27.0%)	720(29.3%)	310(19.7%)	104(14.4%)	197	87	112	16	1	1
	5808	2451	718	166	504	137	212	28	2	1

B and D were increased, while there was a decrease in A and C amongst all the students. One would expect this, because the two central schools chosen as controls were made up largely of those whose origins were non-Central European and whose social standing tended more to class A than in the schools chosen because goitre seemed to be increasing.

As in 1934, we divided our students into four groups. In class A are those whose parents could pay for any medical or surgical care, no matter how prolonged the illness; in class B are those children whose parents are able to pay for most medical ills, though with some sacrifice; in class C are those children whose parents are receiving $65.00 or less a month, with two children; and class D are those receiving relief allowances.

Influence of Water Supply

In our last survey 27 per cent. of the children were receiving their food from one central store, the rations being apportioned according to the size

and ages of the family. Thus the iodine ration of families of the same size and age were the same. Goitre seemed to be directly proportional to the race, sex, and social condition of the individual. We believed that the vast majority of our students were receiving their water supply from the Saskatchewan river, either directly from running water in the house or from taps located outside in the neighbourhood. This is true, but it was not until an investigation of the sources of water amongst the students with goitre was undertaken this year that we realized how large a percentage of our people, in the districts of the 1938 survey, were in unmodern homes and how closely this seemed to be connected with goitre.

Thus in table VI we see that 57.2 per cent. of the children with goitre were receiving water from the city mains, hauled to the house and stored there for use, while 18.7 per cent. were receiving well-water, compared with 32.1 per cent. and 8.4 per cent. respectively of the non-goitre group.

TABLE VI

Incidence of Goitre in 1938 Survey According to Source of Water Supply

Water Source	No. of Students	Goitre	Non-Goitre
Tap	1408 (57.4%)	40 (24.0%)	1368 (59.4%)
Hauled and stored	819 (33.4%)	95 (57.2%)	724 (32.1%)
Well	244 (9.1%)	31 (18.7%)	193 (8.4%)
Total	2451	166	2285

It is interesting to speculate on what we could show were we financially able to have bacterial and iodine analyses made of all our water. We have, on the one hand, 2,227 children receiving the same water. Of these, 1,408 are receiving pure water at the time of use and 40 (2.8 per hundred children) have goitres; 819 are receiving water which, at the time of use, usually is contaminated. Ninety-five of these (11.6 per hundred) have goitres. On the other hand, we have 819 children receiving unsterile water at the time of use and among these were 95 goitres, 11.6 per hundred students; and 224 children receiving well-water, unsterile at the time of use and probably of a different iodine content from that of the South Saskatchewan; among these latter were 31 goitres—13.8 per hundred.

Race and Water Supply

In table VII we have attempted to assess the relative values of race and water source. For this purpose a comparison was made between the English and certain racial groups that had a high incidence of goitre, namely the Ukrainians, Poles, Germans, and Swedes. Sixty-four Mennonites with a high goitre incidence were omitted because of their relatively short stay in the city. In this table we notice a general relationship between the percentage of each race using running water in the home and goitre. Thus the English, with 67.6 per cent. running water, have 2.2 children per hundred English origins, with

TABLE VII

INCIDENCE OF GOITRE IN 1938 SURVEY ACCORDING TO RACE AND WATER SUPPLY

	English		Ukrainian		Poles		Germans		Swedes		Others	
	No.	Goitre	No.	Goitre	No.	Goitre	No.	Goitre	No.	Goitre	No.	Goitre
Tap water....	535	5	41	1	2	0	61	2	17	1	121	4
Water hauled and stored..	217	12	146	23	16	3	57	10	9	3	228	39
Well-water...	39	0	89	12	10	6	16	2	3	0	118	20
Totals.....	791	17	276	36	28	9	134	14	29	4	467	63

goitre; the Ukrainian, with 14.8 per cent. running water, have 13 per hundred; the Germans with 45.5 per cent. running water, have 10.4 per hundred; all non-English, with 25.9 per cent. running water, have 13.4 per hundred. Again, one notices the small percentage of goitres in each race receiving running water. Thus amongst the English with goitres, 29.4 per cent. are receiving running water; the Ukrainians, 2.9 per cent.; the Germans, 14.2 per cent.; the Poles, none; the Swedes, 25 per cent. Also as the percentage of those with goitre receiving running water drops, the incidence of goitre in that race rises.

Social Condition and Water Used

In table VIII we have attempted to break down the influence of social condition relative to water source. Class A, with 100 per cent. running

TABLE VIII

INCIDENCE OF GOITRE IN 1938 SURVEY ACCORDING TO WATER SUPPLY USED AND SOCIAL CONDITION

	Class A		Class B		Class C		Class D		All Classes	
Source	Persons	Goitre	Persons	Goitre	Persons	Goitre	Persons	Goitre	Persons	Goitre
Tap.....	30	0	776	13	413	17	189	10	1408	40
Hauled and stored.....	0	0	137	2	228	24	394	69	819	95
Well.....	0	0	25	0	62	6	137	25	224	31
Total.....	30	0	938	15	763	47	720	104	2451	166

water, had no goitres. Class B, with 81.7 per cent. running water, had 15 goitres, or 1.6 per hundred children. Class C, with 54.1 per cent. running water, had 47 goitres, or 6.1 per hundred children. Finally, class D, with 26.2 per cent. running water, had 10 goitres, or 14.4 per hundred children. Thus it would seem that the influence of social condition on goitre depends on the water source.

Severity and Source of Water

In table IX we have presented some evidence that as the percentage of tap water decreases amongst the children with goitres, the size of the goitres

TABLE IX

Incidence of Goitre in 1938 Survey According to Severity and Water Supply Used

	Tap		Hauled and Stored		Well		Total	
	No.	%	No.	%	No.	%	No.	%
All students	1408	57.4	819	33.4	224	9.1	2451	100.0
Goitre	40	24.0	95	57.2	31	18.7	166	100.0
Slight	37	27.0	75	54.7	25	18.2	137	82.5
Moderate	3	10.7	20	70.7	5	17.1	28	16.8
Large	0	0.0	0	0.0	1	100.1	1	0.6

increased. Thus those with slight goitre had 27 per cent. running water; "moderates", 10.7 per cent.; and "large", no running water.

We could see obviously no relationship between sex and water source, nor between age and water source and, for brevity, these tables are not presented.

Summary

Two thousand, four hundred and fifty-one Saskatoon public school children were examined for goitre and 166 cases (6.7 per cent.) were found.

While age, sex, race and social condition were undoubtedly factors in the etiology, water source seemed to be the deciding factor.

While it was impossible to do adequate water analysis, some figures are presented tending to show that infected water, rather than the iodine content, was responsible for the occurrence of goitre.

Severity seemed to be dependent to some extent on water source, those with slight goitres having a higher percentage of running water than those with moderate and large goitres.

The Voluntary Health Agency*

J. H. MOWBRAY JONES
President of the Liverpool, N.S., Branch of the Victorian Order of Nurses for Canada

THE term voluntary agency as applied to public health may be defined as "an organized group of individuals who have proffered their services for improvement in the welfare and health of their fellow citizens"—in short, an association of free-enlisted workers. Another way of defining this phrase would be the dictionary method of saying "as opposed to non-volunteer action, e.g., a state-supported body or government department". The general substance of my remarks will be to deal with the relationship and position of these two systems, which to a large extent are complementary to each other and as yet are typical of the public welfare functions of democratic peoples.

In a world which has become accustomed to an increasing influence of socialized services and which listens so often to those worn and hackneyed adjectives "regimented" and "totalitarian", the word "voluntary" has a refreshing sound. It somehow gives to an individual the feeling that small though his position may be in the scheme of things, he is still allowed a share in the direction and organization of the efforts to improve the welfare of himself and his fellow men. It definitely places emphasis on the factor of self-expression, which always has been, and always will be, the predominating urge of man. We who subscribe to the method of government of the people, by the people, and for the people, must surely realize that the voluntary agency is an essential for the free-working of basic democratic principles.

The twentieth century so far has been an era of phenomenal progress in matters of health and public welfare. This applies to all countries, but possibly in a greater measure to those which speak the English language. And yet, in spite of our improved standard of living, we are told by highest authorities that there is annually an enormous wastage of human lives that would be greatly decreased if proper steps were taken in preventive medical and health services to alleviate conditions which in the light of modern science can be improved. The gap between our present health condition as a nation and that of the ideal is one which cannot be spanned in a short time. To begin with, that ideal state is at present only envisaged by a mere handful of people known as "the few"; "the many" have still to learn the vital importance of a higher state of national health and that it is the greatest resource which a country can possess.

In many countries today vast movements are under way for the improvement of the health of their people. Though we sometimes doubt the motives behind these campaigns, we nevertheless are moved to admiration by the results achieved in some European countries. The foremost schemes have

*An address given at the forty-first annual meeting of the Victorian Order of Nurses for Canada, held in Ottawa, April 14, 1939.

been directed by the governments of these countries and volunteer agencies have had little or nothing to do with the actual development of the plan. On this account there is a large body of public opinion today that holds to the thought that all future expansion in the field of public health should be under the sole direction of the state. It points to the difficulties of volunteer organizations to secure the funds necessary to carry out their work and makes the statement that much of the work of such bodies does not lie within a comprehensive nation-wide program. Many people will tell you that the day of generous giving of the spontaneous kind is a thing of the past and that we have reached "the end of the road" in the field of charity and voluntary welfare work. When one compares the amount of money spent by state agencies with that of the volunteer institutions, one begins to wonder if there is not more than a shred of truth in this statement. If our Government is willing to take such a share of the burden of public welfare, why not let it go the full way and abolish the volunteer agency? Why not turn over to the state the benefit of the experience and development of these fine organizations and henceforth let it be the problem of the tax-collector to finance all effort of this kind?

Statements which would lead the public to believe that the fate of the volunteer agency is sealed, entirely fail to take into account that the services of these bodies are needed more today than ever before. In my opening remarks, I stated that the free association of citizens in spontaneous enterprise was the very essence of the democratic make-up and that any attempt to abolish this system would be to invite substitutes of a subversive nature. It is my personal contention that the place of the voluntary agency in the welfare organization of a nation is beside the state-controlled department as a junior partner in both the effort and the responsibility. There is a natural demarcation of the field to be allotted to each system and if neither encroaches on the work of the other the best results will be achieved.

It is obvious that many of the present functions of the state departments of welfare and health could never be satisfactorily discharged by the voluntary agency. Again, while it is quite possible for the state department to perform the task of the welfare association, for reasons which I will develop later, it is better that this be carried on by the latter organization.

In the "service" fields of welfare endeavour, the volunteer organization can do its best work, and bodies such as the Victorian Order of Nurses, the Canadian Red Cross Society, the tuberculosis and cancer associations, will always be a necessary part of our system. It is becoming more and more evident that the greatest contribution which the enlisted form of endeavour can make is in the matter of education. If the tremendous problems of national health are to be solved, the basic step will be the enlightenment of all classes as to their duties and responsibilities in a national plan. On account of its complete freedom from any political entangelments, its unselfish motives for service and the confidence which it has built up in the minds of the people through the honest application of well-founded principles, the volunteer agency can perform a yeoman service in health education.

The rapidly widening interest in the fields of public health and welfare in Canada is evidenced by the steady expansion in the assumption as a public

liability, of the welfare needs of the people, by the Dominion and Provincial Governments. This development seems part of a world-wide tendency following upon the fundamental changes in the community and social life of the people in recent decades.

In Canada this development has meant a rapid growth in public expenditures for social services, particularly in the fields of public health and public welfare, by municipal, provincial and Dominion authorities. These tendencies, already evident in the post-war period, have been intensified in this decade of economic uncertainty, with the result that not only has the participation of provincial and municipal authorities in public welfare become more general, but the Dominion Government has assumed liabilities in these fields beyond the concept of post-war years.

Our country, though perhaps in a more conservative manner, usually follows the trends of social development of its great neighbour to the south. While the socialization of the national welfare services in this country has proceeded at an unheard-of rate, this cannot be compared with the tremendous changes of similar nature which have occurred in the United States. That this piling-on of responsibilities upon the Government is causing a reaction to set in is only to be expected. The taxpayer who has been just as loud in his demands for these added services is now vociferous in protesting the bill. It is not that he has not been given his demands, but that he has had no conception all along as to what these added benefits would cost. The realization that these increased taxes have retarded ultimate recovery has not been pleasant.

The lesson to our country in regard to developments of this kind is obvious. We should try to eliminate all non-essential government welfare services and should urge upon our legislative bodies only such new activities as have been tried and proved in other countries. The voluntary agency can serve as the "buffer" between the Government and the people, in demands of this kind, and it is of great interest to note that practically every national benevolent organization is today making special studies of matters pertaining to public welfare affecting not only themselves but also our Governments, both Federal and Provincial. The Victorian Order has for many years devoted a considerable section of its annual meeting to the discussion of national welfare problems, and the importance of the information yielded by these deliberations cannot be overstated. The preliminary consideration of such matters by the voluntary agency is indeed a logical step and one which could be developed to a much greater extent by mutual arrangement between it and the government departments.

In but few ways is the "personal" or human side of organization demonstrated so clearly as in the workings of our national welfare associations. Here we find the busy executive giving of his time, experience and ability to direct the undertaking, the office or professional man or woman acting in the capacity of able lieutenants and people of all ages and classes supplying the energy and resourcefulness necessary to accomplish the objectives. It is a free association of individuals brought about by an earnest desire to serve the community. As a rule there is no direct "gain" to these participants in welfare activities—

that is, as viewed from the standards of other occupations or pursuits of life. However, the intangible benefits from volunteer service to the individual and to the country are many, and while it is difficult to tabulate these in formal order there is one which is always predominant in the minds of those who serve. This is the blessing of personal satisfaction. It goes without saying that the pleasure which many people derive from their contribution to our volunteer services is a lasting influence throughout their lives.

Our national welfare organizations take justifiable pride in their past achievements. One does not need to be reminded of the part which the Red Cross played in the Great War or that of the Victorian Order in the Klondyke and the Halifax explosion, to realize that these great services have never failed in time of greatest need and emergency. It is impossible to consider the value to the nation of organizations such as these without making a study of their history. How many people know the facts concerning the background of the Victorian Order? Who, beyond those individuals specializing in welfare work, have taken the trouble to read the history of the Canadian Red Cross Society, the Canadian National Institute for the Blind, the Children's Aid or kindred voluntary associations? The answer is that very few people know the story of the development of these organizations. Possibly the voluntary agencies have been all too modest about their past accomplishments, but in any case there is need for greater dissemination of information in this respect. In frontier days the accomplishments of services like the Victorian Order were more dramatic and, due to the times, probably impressed the public to a greater extent. Today, with conditions made so much easier for everyone and with the present tendency of expansion in the state welfare services, the voluntary institution has not the same appeal. And yet the records of agencies such as the Victorian Order continue to show a tremendous contribution to improved mortality rates, more efficient technique and widening horizons in all forms of preventive nursing and health services.

There is no question but that today the voluntary association not only assists the government welfare agency, but also competes with it. This anomaly is an indication of the saturation point of welfare service facilities having been reached in certain fields. There is nothing but for both government and voluntary agencies to recognize this condition and to alter their services accordingly. But in spite of possible rearrangements the volunteer institution is under a handicap and must recognize these changing conditions and be prepared to meet them with new ideas. We live in a "streamlined" age, and the public are not greatly affected by mere facts and figures, no matter how impressive they may be. Yet there is a tremendous latent appeal in the history of this nursing order, and with the present revival of interest in like subjects the possibilities of a full-length historical film or other suitable presentation would appear to be great indeed.

Those who serve with the voluntary associations are at times apprehensive concerning the future of the enlisted form of welfare endeavour. The very fact that such individuals view with alarm the rapidly developing situation is in itself one of the most forcible arguments for strengthening rather than curtailing the activities of the volunteer services. For is it not a sound dis-

putation that the same people who would be released from their heavy contributions in both time and money are the very ones most ardent in the claim that the voluntary agency is an absolute necessity for the progress of our country?

If all sections of the public understood the value of voluntary welfare work as well as our governments do, then the problem, if there really is such, would not exist. We can state the case of the Victorian Order, let us say, and produce much evidence in favour of its form of public service and very little against. Reduced to the very minimum, there are but three main objections to the volunteer agency: the possibility of duplicating government services, the necessity of additional appeals to the public for funds, and the unequal form of contribution.

In respect to the first objection, there is very little danger of this since organizations such as the Victorian Order of Nurses adhere closely to the service objectives as defined in their constitution and through close cooperation with the government departments the chance of duplication may be eliminated. As to the second, the modern system of joint appeals through a community chest or joint welfare council has largely disposed of this objection. Voluntary agencies must have monetary support, but at least it can be stated that they obtain the highest value for their expenditures. As to the last item, this is entirely dependent on the individual, and human nature being what it is, there will always be a varying degree of generosity in the support of welfare work.

There is a growing tendency of organized groups, such as firms, service and community clubs, fraternal orders and labour unions, to undertake an active part in the support of the Victorian Order. This is a development which should receive every form of encouragement. The undertaking of definite commitments by other organizations relieves to a great extent the strain on individual effort and lends a stability to the business side of welfare activities. With large scale individual private support seemingly less in these days, this transference of some of the load comes at an opportune time.

The Victorian Order has had a steady growth throughout its forty-one years of existence, and it is today serving more than one-third the population of Canada. Experience has shown that its form of nursing service is equally effective in both rural and urban areas. Unquestionably there exists the opinion that the work of the Order should continue to be expanded until every section of this Dominion shall have the benefit of the service. Last year, as a result of a special fund for assisting new branches, a number of new territories were opened up. It is certainly desirable that this extension program should continue, and the efforts of our headquarters staff in this interest are to be most highly commended. However, the responsibility of extension should not rest entirely upon the shoulders of the National Office. We laymen who are privileged to assist in the work of an existing Branch; we, who have had the experience and know the value of this service and realize how basically sound the Victorian Order system is—we also have some part in this responsibility. And it should be the duty of the executive of all branches to give serious consideration to the possibilities for inaugurating new branches or extending the work of the existing branch in its immediate vicinity. If every branch could

accomplish something to this end, there would be a definite contribution to the nation's welfare.

Having been privileged to have an active part in the extension of my own branch to take in the territory of two nearby towns, I can say that this method of expansion is a logical and thoroughly practical step. In this particular case the idea of having the service in the new town was successfully presented to interested groups in these places by the board of the existing branch. Following this, a request for a field survey by Headquarters was made to determine the practicability of the scheme. This report, duly presented to the public, eventually brought about a contract between the branch and several organizations in these towns to undertake certain fixed guarantees for a three-year period. The securing of a grant for the same period from the Headquarters Extension Fund completed the necessary financing, and within two months of entering negotiations the new service was actually in operation. The organization of the enlarged branch was rearranged to include suitable representation on the board from the new districts, the branch by-laws were revised and a second qualified nurse was appointed for the new work. This whole procedure has since worked out in a most satisfactory manner and, subsequently, the second nurse has been provided with an automobile which has greatly increased the scope of her work. As a direct result of this particular extension project considerable interest has been given to further expansion of the V.O.N. service throughout adjacent territories, and at the present time our board is giving the matter of a complete country-wide service serious consideration.

I feel that the matter of extending the work of the Victorian Order in all parts of the Dominion cannot be over-emphasized. There is a definite need for this general nursing service in many sections and the possibilities for organizing new branches, whether assisted or otherwise, have by no means been exhausted. As always we must stop to count the cost, but the benefits from improved health of the citizens in those areas still to be served should also merit serious consideration. Our Order was fostered by one of His Majesty's Most Gracious Representatives, it has long enjoyed the patronage and unfailing interest of their Excellencies and now in this momentous year of the first visit to our country of our beloved King and Queen, this interest should be suitably marked. In what more fitting manner could we commemorate the visit of their Majesties than by a further extension of our service to more of his loyal subjects?

And now in conclusion I shall briefly sum up the position of the voluntary agency in our country today. For the perseverance of any system, political, economic or social, the forces maintaining that system must be in a condition of balance. Our own social system, though far from perfect, we nevertheless feel is worth preserving—and one of the strong forces that helps to balance this system is the volunteer institution with its democratic methods, its directness, its more personal influence, its educational value, its position of liaison between the public and the state, and last but by no means least, its fine traditions of unselfish services. We have something that is worth preserving and I think we all realize this.

EDITORIAL SECTION

WHAT CONTRIBUTIONS CAN THE HEALTH DEPARTMENT MAKE IN REDUCING HIGHWAY ACCIDENTS?

THE mortality and disability resulting from highway accidents are increasing yearly and constitute a problem of such magnitude that it requires the active assistance of every branch of government that can aid in reducing this toll of preventable deaths and injuries.

Accidents are not due to chance: they are due to conditions practically all of which are controllable. The human factor is of primary importance. Medical examination of applicants for licence is a safeguard. Such examinations, however, are superficial and often fail to disclose conditions which may be the source of serious accidents. The valuable records of the Department of Highways of Ontario show that some individuals have a proneness for accidents. Such accident proneness is found both in drivers and in pedestrians. Only special studies conducted by trained workers will reveal the underlying factors of many of the accidents, particularly among those who have previously been involved in such occurrences.

The survey which formed the basis of a report to the Dominion Council of Health, and which is published in this issue, records the measures which are being taken by provincial governments and the responsibilities which are being assumed by the various departments. This survey is evidence of the interest of the Department of National Health in this problem; and it is evidence also that there is no uniformity of action among the provinces and that in certain of the provinces the measures are quite limited. Further, no direct responsibilities have been assumed by any of the provincial departments of health in attempting to meet this problem. The part which the departments of health may play in reducing accidents is, of course, not yet defined, but the prevention of premature death and the prevention of disabilities are part of the program of public health. Discussion of ways and means for the furtherance of co-operation between the department of health, the department of highways, and other departments of the provincial governments concerned might well be arranged through conferences and an answer obtained to the question of how the departments of health may aid in the solution of this urgent problem.

REPORT OF THE ASSOCIATION'S WORK DURING 1938-39

(Part III)

REPORT OF THE COMMITTEE ON CERTIFICATION OF CAUSES OF DEATH

DURING the past three years the committee has paid particular attention to the reception and use of the new medical Certificate of Death, in the introduction of which this committee made an important contribution. In this connection a good deal of investigation has been done by the committee but considerably more remains. Especially are studies needed which will shed some light on the extent to which recorded statistics would be affected by accepting the certifying physician's preference where multiple causes are stated on the certificate, in place of selection by rule. The British Register Office has already done a great deal of work in this connection, beginning in 1935, and these researches have been continued. It has been found in the course of these latter investigations that in a number of instances significant changes would occur and that often present practice is not in agreement with physician's opinion as expressed on the death certificate. In addition, some examination is desirable of the extent to which conventions of selection can be abandoned since it is obvious that complete reliance on the certifying physician's statement may possibly place too unreasonable a weight on different opinions in respect to a given process. These are the tasks to which it is hoped the committee may make some contribution next year. It will be necessary to extend such observations over a period of three to five years in view of the volume of work involved. The co-operation of both the Dominion Bureau of Statistics and the School of Hygiene, University of Toronto, will be indispensable in this connection. The work outlined is of sufficient importance to merit an early beginning pending a full study about 1944, when the experience of ten years will be available.

Section I—Instruction of Medical Students and Physicians in Completing Death Certificates

The International Conference which met in Paris in October, 1938, again included among its recommendations one urging the importance of making a serious effort to give special instructions to medical practitioners and students "in the principles on which death certificates should be made out". Canada, we believe, has made a substantial beginning in this field and over a period of years the use in all Canadian medical schools of the exercise prepared by the committee will do much toward assisting physicians in discharging their task in a fashion satisfactory both to themselves and to statistical offices, as well as toward improving vital statistics in Canada as a whole.

SECTION II—STILLBIRTH REGISTRATION

Stillbirth registration and certification by the use of a single national standard stillbirth certificate will shortly be an accomplished fact in Canada. The work of the Subcommittee on Stillbirth Registration and Certification under the chairmanship of Dr. H. A. Sellers, whose annual report is printed elsewhere, has been of substantial assistance in effecting this desirable change. The favourable response to the committee's enquiries and study during 1937-38 indicated that the medical profession were definitely interested and would welcome the change in the form and procedure suggested. The confidential returns made to the committee were of a high order and the assistance of co-operating physicians and hospitals in making the studies possible has been much appreciated.

Many extensive investigations are being conducted into the factors involved in foetal and neonatal mortality. The growing scope of such enquiries represents an extended medical interest and any plan on a national scale which makes possible a significant contribution in this connection is deserving of support. The present findings of the Subcommittee on Stillbirths indicate that information of real medical value may now be expected from stillbirth certification in Canada.

SECTION III—CONFIDENTIAL CERTIFICATION

The deliberations of the Subcommittee on Confidential Death Certification are as yet in the preliminary stage. The chairman of this subcommittee—Dr. Paul Parrot—made a study of the existing defects in certification in selected areas in Quebec and presented his findings at the Conference of Vital Statistics held in Ottawa in May last year. At this time it was concluded that a large measure of existing inaccuracies and deficiencies were due to open certification. A scheme was also presented for effecting confidential certification without re-routing the form. A special session will be held at the forthcoming annual meeting at which this whole question will be further discussed.

In New York City, a confidential system of death certification was introduced in the borough of Manhattan in January, 1939. This scheme provides for a Certificate of Death on which is indicated the civil data and a general statement of the fact of death. The physician is requested to complete, in addition, a Confidential Medical Report which, duly signed, is delivered in a sealed envelope along with the Certificate of Death to the Funeral Director and thence to the Department of Health. The physician is required also to complete and retain a stub called the Registry of Death, which contains the essential civil information in each case, plus a copy of the Confidential Medical Report submitted to the Health Department.

The special forms and procedure described do not apply in deaths caused by or associated with accident, suicide, homicide, criminal abortion, acute or chronic poisoning or in any suspicion of these conditions, or if death occurred suddenly while in apparent health or when unattended by a physician. In this instance, the case is to be referred to the Chief Medical Examiner for investigation. Copies of the certificates are *not* issued, the medical report remaining a confidential communication between the certifying physician and the Health Department.

SECTION IV—THE FIFTH DECENNIAL REVISION OF THE INTERNATIONAL LIST OF CAUSES OF DEATH

Following the presentation of the committee's report last year, the committee, at the invitation of the Dominion Bureau of Statistics, prepared a final brief for incorporation into its previous recommendations for presentation at the Conference in Paris. This brief dealt specially with certain of the suggested rubrics in the draft of the Detailed List of Causes of Death as prepared for submission to the International Conference by the Joint Commission. Special attention was drawn in the committee's brief to Class XI, Diseases of Childbirth, Pregnancy and the Puerperal State.

Canada was represented at the Conference for the first time. The Canadian delegate was the late Mr. W. R. Tracey whose most untimely death was a great loss to his many friends and to vital statistics in Canada, to the development of which he had contributed so much. While some of the suggested changes with which the committee was not in agreement, were adopted, on the whole Canada's views received ample attention and in a number of instances resulted in the desired modifications.

The essential features of the new detailed list may be summed up as follows:

1. The List is retained in its original general form, limited to 18 classes and 200 rubrics. Wherever possible improvements indicated by scientific progress and experience have been made without disturbing the content, number and even the actual numbering of the titles.

2. Section I is divided into Diseases due to Bacteria, Diseases due to Protozoa, Diseases due to Spirochaetes, Diseases due to or attributed to Filterable Viruses, Diseases due to or attributed to Rickettsia, Diseases due to Helminths, Diseases due to Fungi, and Other Infective or Parasitic Diseases.

3. One important change involving transfers from class to class is the new rubric for syphilis (30). The new title has been made inclusive by the transfer of locomotor ataxia (tabes dorsalis) and general paralysis of the insane from Diseases of the Nervous System, and aneurysm of the aorta from Diseases of the Circulatory System.

4. The principal change in Class II—Cancer and Other Tumours—is to be found in the consolidation of a rubric for cancer of urinary organs (both sexes) and the provision of a separate title for cancer of the male genital organs. A separate rubric is provided for cancer of the brain.

5. One of the most significant practical provisions in the new List is the setting up of optional sub-titles, in rubrics 90, 92, 93, and 95, so that deaths due to heart disease specified as rheumatic may be identified separately. This provision is of great importance since it will make possible the tabulation of deaths from rheumatic heart disease and a complete summary of deaths attributed to rheumatic fever.

6. Class XI—Diseases of Pregnancy, Childbirth and Puerperal State, presents noteworthy changes which may be summed up as being largely concerned with an attempt to distinguish clearly those deaths among women while still in the pregnant state as opposed to those occurring during childbirth or the puerperium. Separate rubrics are provided for Haemorrhage of Pregnancy, Toxaemia of Pregnancy and Other Diseases or Accidents of Pregnancy—apart from

abortion. These changes were made largely upon the suggestions of the British and American representatives at the Conference and were in line with researches carried on by the British Register Office for the past several years. Under Infections during Childbirth or the Puerperium are included puerperal thrombophlebitis, embolism and sudden death (old rubric 148). Undoubtedly the proper use of this revised scheme will be contingent upon a certain number at least of supplementary enquiries concerning the time of death in relation to delivery as has been the recent practice in the British Register Office.

7. Rubrics devoted to Suicide have been reduced from 9 to 2, permitting the expansion of other parts of Class XXVII (Violent or Accidental Deaths) without expanding the total number of rubrics in the List. The extra numbers made available, have been used for accidents in transportation, accidents in mines and quarries, accidents due to machinery, etc. Rubrics 169 to 195 are now devoted to accidental deaths, numbers 169 to 176 of which include deaths under specified circumstances regardless of the cause of death, while 177 to 195 exclude deaths which by convention are to be classed to the previously mentioned rubrics.

Intermediate and Abridged Lists of Causes were also approved as well as a List of Causes of Stillbirth. The latter list is divided into four classes—Stillbirth Caused by Disease in or Accident to the Mother, Anomalies of the Foetus, Placenta or Cord, Death of the Foetus by Injury or Other Causes, and Stillbirth due to Other Causes (not previously specified).

In connection with the work of the 1938 Conference, reference was made especially to the problem of Joint Cause Selection. In August, 1938, the Bureau of the Census at Washington, as a result of the invitation extended by the 1929 Conference to initiate studies of means of unifying the methods of selection of the main causes of death to be tabulated (in those cases where two or more causes were mentioned on the death certificate), published a special report presenting the findings based on a sample of 1,032 death certificates. This preliminary study is sufficient to indicate the need for caution in making *any* International comparisons and to indicate also the importance of further study prior to a discussion and solution of the many problems associated with joint cause selection which now exist.

The Conference requested the United States Government to continue its investigations during the next ten years, in co-operation with other countries and organizations on a slightly wider basis.

In view of the work done during the past four years by this committee in connection with the 1938 revision of the International List of Causes of Death, it is suggested that a permanent working subcommittee be set up to gather experience, views and opinions upon the operation of the new list, preparatory to deliberations preliminary to the preparation of the committee's brief for the Sixth Decennial Revision which will be undertaken in Paris in 1948. It is felt that by setting up such machinery at an early date this committee can be of substantially greater assistance to the Dominion Bureau of Statistics in the making of practical suggestions.

SECTION V—THE NEW UNITED STATES STANDARD DEATH CERTIFICATE

In January, 1939, a special report was issued by the Bureau of the Census at Washington presenting the new standard certificates of registration of death, birth, and stillbirth. This committee is naturally specially interested in the medical certificate of death on the new standard American death form and the text of this part of the certificate is reproduced below:

Immediate cause of death	*Duration*
.....	.....
.....	.....
Due to	.....
.....	.....
Due to	.....
.....	.....
Other conditions	.....
(Include pregnancy within 3 months of death)	*Physician*
.....	Underline the
Major findings:	cause to
Of operations	which death
.....	should be
Of autopsy	charged
.....	statistically
22. If death was due to external causes, fill in the following:	
(a) Accident, suicide, or homicide (specify)	
(b) Date of occurrence	
(c) Where did injury occur?	
(City or town) (County) (State)	
(d) Did injury occur in or about home, on farm, in industrial place, in public place?	
(Specify type of place)	
While at work? ..... (e) Means of injury	

The nature of the questions relating to cause of death signifies the virtual adoption of the essential principles suggested as a basis for a medical certificate for international use by the League of Nations Special Committee in 1925. England, Australia, New Zealand and Canada now have such a form of medical statement. It is noted that the United States form includes a request that the physician "underline the cause to which death should be charged statistically."

SECTION VI—CLASSIFICATION OF THE CAUSES OF SICKNESS

At the meeting of the Dominion Council of Health in June, 1938, the second report of the committee appointed by that body to study the question of morbidity classification was presented and approved. This report urged the re-writing of the schedule of rubrics submitted following the completion of the 1938 revision of the International List. This work will be undertaken shortly.

In this connection it is noteworthy that developments in Canada indicate a much wider use of morbidity data and tabulations of general sickness experience are being made to some extent in almost every province. A wide variety of lists are being used, as is natural and necessary by virtue of the varieties of objectives to be served and the nature of experience concerned. Among the recommendations of the 1938 Conference for the Revision of the International List of Causes of Death was one to the effect that the Joint Committee appointed by the Interntaional Institute of Statistics and the Health Organization of the League of Nations undertake, as in 1929, the preparation of International Lists

of Diseases in conjunction with experts and representatives of the organizations especially concerned. The opinion was expressed that nomenclatures of morbidity should, generally speaking, correspond with lists of causes of death.

Further, the Conference recommended that, pending the compilation of international lists of diseases, "the various national lists in use should, as far as possible, be brought into line with the detailed International List of Causes of Death (the number of the chapters, headings and sub-headings of the said list being given in brackets)." This latter recommendation is interesting, particularly in view of the work which has been done by the committee named above, since the committee's last report included a list prepared in keeping with this recommendation, as was its primary objective.

The members of the committee desire to record their appreciation of the work of Dr. A. H. Sellers, whose special studies and interest in the certification of stillbirths and in the work of this committee have been so valuable.

DR. R. D. DEFRIES, *Chairman*; DR. H. E. YOUNG, MR. E. S. MACPHAIL, DR. M. R. BOW, DR. WM. WARWICK, DR. PAUL PARROT, MR. S. J. MANCHESTER, MR. T. E. ASHTON, DR. E. GAGNON, and DR. A. H. SELLERS, *Secretary*.

REPORT OF THE COMMITTEE ON MILK CONTROL

THE committee is conducting its work through the several Sections of the Association that are concerned with the problem of the production and distribution of safe milk. In the laboratory field the subcommittee of the Committee on Standard Methods dealing with the bacteriological and chemical analysis of milk, under the chairmanship of Dr. Ambrose Moffat, has awaited publication by the American Public Health Association of the revised edition of "Standard Methods of Milk Analysis". It is the intention of the subcommittee, after study of these methods, to recommend their adoption as the standard methods for Canada. As in the instance of the subcommittee on standard methods for the examination of water, the adoption of the standard methods of the American Public Health Association will be subject to the reservation that alternate methods approved by the Laboratory Section of the Canadian Public Health Association may be adopted if found desirable. In the meantime, a series of laboratory studies are being conducted by members of Dr. Moffat's committee in representative laboratories in Canada.

A definite advance has been made in the prescribing of standards of quality and safeguarding of ice cream through regulations issued under the Food and Drugs Act of Canada. The regulations provide that ice cream shall not contain more than 5/10 of 1 per cent. of stabilizer and not less than 36 per cent. of total solids, of which 13 per cent. must be milk fat. In the case of ice cream containing fruit or nuts, the content of milk fat may be proportionately reduced but must not be less than 11 per cent. The public is further safeguarded by the fact that ice cream must weigh not less than 5 pounds per gallon and the regulations require that the "mix" from which ice cream is made must be pasteurized. Ice cream must not contain more than 100,000 bacteria

per gram when examined according to standard methods. The members of the committee desire to express hearty approval of this forward step on the part of the Department of Pensions and National Health in assuring proper standards and safeguards for ice cream distributed throughout Canada. These regulations establish a standard higher than that which has been possible in other countries.

In the field of public health engineering Dr. A. E. Berry and other members of the Public Health Engineering Section are giving consideration to the new types of dairy equipment, particularly the value and limitations of so-called "flash" pasteurization. It is planned to extend these studies in order that public health officers throughout Canada may be acquainted with the merits of various advances as well as warned of the possible defects of various types of equipment. Through such publicity the dangers of cold pockets and improper piping arrangements, and the necessity for recording thermometers, have been generally made known to all who are concerned with the supervision of pasteurization.

In the Section of Vital Statistics and Epidemiology detailed information has been obtained concerning several outbreaks of communicable diseases due to milk and dairy products. Further evidence of the occurrence of staphylococcic food poisoning associated with cream-filled pastry products has been obtained. Three epidemics have been studied in detail. Action has been taken by several cities in limiting the sale of these products during the summer months.

The committee is again collecting data concerning the extent of pasteurization in Canada through enquiry to more than 300 municipalities. This year additional information is being obtained and the committee will be able to publish shortly a detailed survey of the extent of pasteurization in Canada. Last year a special Milk Number of the Journal was published in June. It was decided that such a number should be a feature every second year.

The committee has as its objective the preparation and adoption of a standard milk ordinance for use throughout Canada. It is regretted that there is no uniformity in Canada among municipalities in regard to the pasteurizing temperature. At present it varies from a minimum of 140 degrees to a maximum of 147 degrees. There is urgent need for an agreement which will adopt 143 degrees for 30 minutes, which has been proved to be effective and practicable. It is not only a question of pasteurization but many other essential details which can be dealt with by a milk ordinance, to the advantage of all municipalities throughout Canada.

The Committee on Milk Control is concerned also with urging a definition of "milk". The Department of Pensions and National Health is to be commended on the strong stand they took when the definition of milk was first raised by the request of the dairy interests to permit the name "chocolate milk". The wisdom of the decision of the Department that this product must be named "chocolate-flavoured dairy drink" has been shown by subsequent efforts to introduce other preparations containing milk powder or skim milk, sugar, flavors, etc. The members of the committee desire therefore to strengthen the hands of the Department of Pensions and National Health in retaining the name "milk" as properly defined.

The purpose of the committee is to gather scientific data in all fields relating to the production, preparation, distribution, and use of milk. The committee therefore serves as a medium for the distribution of such facts to all agencies concerned.

A. E. BERRY, *Chairman.*

REPORT OF THE COMMITTEE ON THE ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH

IT is gratifying to the committee that the efforts of past years to improve the form and content of annual reports of medical officers of health of the larger urban centres have resulted in a marked increase in interest and in the quality of these annual reports. The committee prepared standard forms for presenting the statistical data relating to mortality and morbidity. It was believed that these forms, requiring the presentation of similar data for a period of the preceding four years, would permit the medical officer of health to see more clearly the extent of the progress, or lack of progress, and so know where his problems lay It was urged that the annual report of the medical officer of health is the occasion for presenting to the citizens of his community not only the work that has been accomplished but work that needs to be undertaken, outlining how these needs may be more adequately met. It is encouraging that a number of medical officers of health have adopted the suggestions of the committee and have made their annual reports of such a character that there is a greatly increased interest manifested by the municipal councils, by the public press, and in turn by the citizens. The number of municipalities distributing printed reports has been almost doubled and the number of copies distributed has likewise been increased in a number of municipalities, indicating a much larger use of such annual reports. The desire of the committee to obtain a degree of uniformity in regard to statistical data has been practically achieved. It is now possible to obtain from the reports of practically all cities in Canada essential data relating to mortality and morbidity, the extent of immunization, etc., in tabular form that permits of comparison. Health officers have appreciated the information supplied by the committee as to the importance of calculating rates with due consideration of the inclusion of non-residents so that correct rates are available for residents. Supplementing this information has been the co-operation of the Dominion Bureau of Statistics in reallocating deaths according to residence and assisting municipal departments in obtaining correct data. The committee regret that the effort to prepare statistical tables for use in rural and smaller urban centres has not been completed. This work is outstanding and it is hoped that the committee will be able to complete their study also of the composition of municipal health budgets so that annual reports of all municipalities may include a budget and such budgets will clearly present the distribution of expenditures according to accepted health activities, removing the confusion which occurs when comparisons are now made between municipalities in regard to health expenditures without such accurate definition.

D. V. CURREY, *Chairman.*

REPORT OF THE STUDY COMMITTEE OF THE PUBLIC HEALTH NURSING SECTION

THE committee records with sorrow the death of Miss Laura Gamble, who was convener of this committee, and of Miss Elizabeth Gertrude Breeze and Miss Huilota Dykeman, both members of the consultant group.

This committee, appointed in 1935 to study such problems as might be referred to it, was under the convenership of Miss Laura Gamble. The report of the activities for the first two-year period was presented in 1937 by Miss Gamble. Following the presentation of that report, a subcommittee was named to continue the study of personnel policies.

During the year 1938, no new topic was referred to the Study Committee, and the convener resigned at the end of the year owing to ill health. The convenership was accepted by Miss Mary S. Mathewson.

The Study Committee is now in process of reorganization. The responses to the original questionnaire brought out the fact that those most interested in the development of public health nursing considered that the following topics were most urgently in need of study:

1. Qualifications for employment.
2. Supervision.
3. Physical examinations—pre-employment and periodic.
4. Staff education.

Questions 1, Qualification for employment, and 3, Physical examinations, have been dealt with by a special subcommittee. The report and recommendations of that subcommittee, representing two years' work, will be presented by Miss Elsie Hickey, the convener.

It would appear that the second topic, Supervision, is next in order for study. Item number 4, Staff education, is so closely related to the question of supervision that it is desirable that these two subjects should be studied simultaneously. Unless more urgent problems for investigation are referred to this committee at the Toronto meeting, it is respectfully recommended that the next activity of the Study Committee shall be directed toward the matter of supervision and staff education: this study to include the qualifications and preparation of supervisors, supervisory practices, and staff policies and programs applicable to public health nursing services in rural areas as well as urban centres in Canada.

MARY S. MATHEWSON, *Convener.*

REPORT OF THE SUBCOMMITTEE ON MINIMUM QUALIFICATIONS FOR EMPLOYMENT OF PUBLIC HEALTH NURSES

THE personnel of the committee is: Miss Florence Emory, Miss Ethel Cryderman, Miss Margaret Kerr, Miss Edna Moore, and the chairman.

The committee sustained a very great loss in the death of one of its members, Miss Laura Gamble.

Two meetings have been held. Preliminary consideration in the study has been given to personal qualifications, pre-professional and professional training of public health nurses. No definite conclusions, however, have been reached.

ELSIE HICKEY, *Convener.*

PLANS, PROGRAMS, AND PROGRESS

Course for the Diploma in Public Health, University of Toronto

AN important change has been made in the arrangement of the course of instruction leading to the Diploma in Public Health in the School of Hygiene, University of Toronto. As in the past, the course consists of a winter session and a summer session. The summer session provides the opportunity for field experience, the work being carried out under the direction of a department of health. The winter session is now arranged in four terms, each of approximately eight weeks. Candidates are permitted to extend the work of the course over more than one academic year. It is possible therefore for candidates who are employed in public health work to take the work of one or more terms and to complete the course subsequently. The rearrangement of the terms in this manner will be appreciated by health officers and others engaged in public health work who can arrange leave of absence more readily for shorter periods.

Post-graduate Instruction in Public Health Engineering

Announcement is made in this issue of the Journal of the post-graduate instruction in public health engineering which is offered by the University of Toronto. The provision of such post-graduate instruction by the Faculty of Applied Science, in co-operation with the School of Hygiene, meets the need for the training of public health engineers, providing a fundamental training in public health as well as in engineering.

Tuberculin Testing of School Children in Nelson, B.C.

Dr. F. B. Sparks, D.P.H., Medical Officer of Health of Nelson, has reported the results of tuberculin testing of 708 pupils during the year 1937-38. The school population is approximately 1200. The testing included pupils in the primary and high schools. Of the 708 tested, 124 presented positive reactions. Among the high school pupils 119 negative reactions and 25 positive reactions were recorded. X-ray examination of all positive reactors was conducted by the travelling clinic of the Division of Tuberculosis Control of the Provincial Board of Health. Three active cases of tuberculosis were discovered, two of whom were admitted to sanatorium and one ordered to bed at home. A fourth case was subsequently diagnosed and admitted to sanatorium.

In conducting the testing, notification was sent to the parents that the Department of Health purposed to carry out these tests and it was asked that a request card be signed. Literature was distributed. Approximately 60 per cent. of the parents signified their desire to have the tests made. The testing was conducted by the Medical Officer of Health and the school nurse. An estimate of the cost would be from fifteen to twenty cents per test. The work was conducted while visits were being made in the routine work. The tuberculin was supplied free by the Provincial Board of Health.

Mental Hygiene Service in New Brunswick

The Department of Health announced recently the establishment of a mental hygiene service for the Province of New Brunswick. Dr. Arthur F. Chaisson has been appointed to the staff of the Provincial Hospital in Saint John and, in co-operation with Dr. E. C. Menzies, superintendent, will develop a comprehensive program which ultimately will provide New Brunswick with an adequate mental hygiene service.

Travelling Dental Clinic in Nova Scotia

To provide dental care for children in isolated sections of Nova Scotia, the Department of Public Health has

placed in operation a mobile dental clinic which will be sent into rural districts under the direction of a committee composed of representatives of the Department and of the Nova Scotia Dental Association.

The trailer is equipped with a complete dental unit and has facilities for running water, electric light, sterilizing cabinets, and other necessary equipment. A large glass skylight directly above the dental chair has been provided. The trailer is fully insulated so that it may be used in cold weather. A dental surgeon and a public health nurse will accompany the trailer at all times.

EDUCATIONAL QUALIFICATIONS OF PUBLIC HEALTH PERSONNEL

THE work of the Committee on Professional Education of the American Public Health Association is well known. Three reports have been issued recently. One presents educational qualifications of personnel in environmental sanitation: public health engineers, sanitarians, and sub-professional field personnel in sanitation; the second report outlines educational qualifications of public health statisticians; and the third relates to educational qualifications of school health educators. Copies of these reports may be obtained from the office of the American Public Health Association, 50 West 50th Street, New York.

THE CONFERENCE OF MUNICIPAL PUBLIC HEALTH ENGINEERS

DURING the 1938 meeting of the American Public Health Association, held in Kansas City in October, an organization known as "The Conference of Municipal Public Health Engineers" was formed, with the following officers: Chairman, Joel I. Connolly, Sanitary Engineer and Assistant to the President, Board of Health, Chicago, Ill.; Vice-Chairman, Aimé Cousineau, Sanitary Engineer and Superintendent Engineer of the Division of Sanitation, Department of Health, Montreal, Que.; and Secretary-Treasurer, Alfred H. Fletcher, Sanitary Engineer, Department of Health, Memphis, Tenn. The first meeting of this association will be held in Pittsburgh, Pa., on Monday, October 17th, preceding the annual meeting of the American Public Health Association.

The Conference of Municipal Public Health Engineers provides a medium for discussion of the problems of the municipal public health engineer, to the end that knowledge of methods and administrative procedures may be exchanged, the findings of studies made available, and co-operation encouraged. Sanitary and public health engineers in health, water, industrial and similar related departments of municipalities and urban areas are eligible for membership.

THE ANNUAL MEETING OF THE CANADIAN TUBERCULOSIS ASSOCIATION

THE thirty-ninth annual meeting of the Canadian Tuberculosis Association will be held in the Royal Alexandra Hotel, Winnipeg, September 7th to 9th. The program is as follows:

THURSDAY, SEPTEMBER 7th

9:00 a.m.—Registration.

9:30 a.m.—Addresses of Welcome.

Case-Finding:

(1) The Relative Value of Diagnostic Methods As Seen in a Routine Clinic. Dr. P. W. Hardie, Mountain Sanatorium, Hamilton.

(2) School Surveys in Saskatoon. Dr. H. C. Boughton, Saskatoon Sanatorium, Saskatoon.

(3) Tuberculosis Case-Finding in Industry. Dr. C. G. Shaver, Niagara Peninsula Sanatorium, St. Catharines.

(4) Travelling Tuberculosis Clinics in Manitoba. Dr. A. L. Paine, Manitoba Sanatorium, Ninette.

(5) Programme of the Provincial Committee for the Prevention of Tuberculosis in Quebec. Dr. Lasalle Laberge, Quebec.

Luncheon—St. Vital Sanatorium.

(Afternoon session to be held at St. Vital Sanatorium.)

2:00 p.m.—

(1) Results of Surgical Treatment of Bone and Joint Tuberculosis. Dr. A. P. MacKinnon, Winnipeg.

(2) Tuberculous Bronchiectasis. Dr. L. W. Thompson, Weston Sanatorium, Weston.
(3) Some Observations on Pneumoperitoneum. Dr. G. S. Jeffrey and Dr. D. C. Marlatt, Fort William Sanatorium, Fort William.

7:00 p.m.—Meeting of Executive Council.

FRIDAY, SEPTEMBER 8th

9:30 a.m.—
(1) Classification of Non-Tuberculous Pulmonary Disease. Dr. P. M. Andrus, Queen Alexandra Sanatorium, London.
(2) The Problem of Surgical Intervention in Tuberculous Individuals. Dr. Thomas J. Kinsella, Minneapolis, Minn.
(3) Importance of Primary Tuberculous Infection in Adults. Dr. Erik Hedvall, University of Lund Tuberculosis Clinic, Lund, Sweden.

Luncheon.

1:00 p.m.—Speaker: Mr. W. P. Shahan, Executive Secretary, Illinois Tuberculosis Association.

2:00 p.m.—
(1) Some Observations on Tuberculosis Among Students of Nursing and Medicine. Dr. J. A. Myers, University of Minnesota.
(2) Methods of Protection from Tuberculosis for Susceptible Groups. Dr. R. G. Ferguson, Fort Qu'Appelle.
(3) Elimination of Tuberculosis Breakdowns Among Nurses in a General Hospital. Dr. J. D. Adamson, St. Boniface Sanatorium, St. Vital.
(4) The Effect of Sulfanilamide Upon the Growth of Acid Fast Bacilli in Vitro and Upon the Development of Experimental Tuberculosis in the Guinea Pig. Dr. Harry C. Ballon and Albert Guernon, Montreal.

7:00 p.m.—Annual Dinner.

SATURDAY, SEPTEMBER 9th

9:30 a.m.—
(1) Tuberculosis in the Indians of Canada. Dr. Percy Moore, Indian Affairs Branch, Ottawa.

Discussion:
Dr. Thos. F. Murray, Sarcee Reserve, Alta.
Dr. W. L. Falconer, Pas Reserve, Man.
Dr. A. B. Simes, Qu'Appelle Indian Health Unit, Sask.

(2) Pulmonary Moniliasis. Drs. J. A. and Gaétan Jarry, Montreal.
(3) A New Concept of the Sequelae of Tuberculosis Pleurisy. Dr. Hugh E. Burke, Montreal.

Visit to Manitoba Sanatorium, Ninette.

APPOINTMENTS

DR. G. D. W. CAMERON, D.P.H., Research Associate in the Connaught Laboratories, University of Toronto, has been appointed Chief of the Laboratory of Hygiene of the Department of Pensions and National Health.

DR. MORLEY S. LOUGHEED, D.P.H., has been appointed Medical Health Officer of the city of Winnipeg, succeeding Dr. A. J. Douglas, who has retired after nearly forty years of service. Dr. W. J. Wood, D.P.H., has been appointed Assistant Medical Health Officer and Bacteriologist.

COMING MEETINGS

American Public Health Association: 69th annual meeting, Hotel William Penn, Pittsburgh, Pa., October 17-20. Sixth Institute on Public Health Education, October 15-17.

American Congress of Physical Therapy: Hotel Pennsylvania, New York, September 5-8.

American Congress on Obstetrics and Gynecology—sponsored by the American Committee on Maternal Welfare, Inc.: Municipal Auditorium, Cleveland, Ohio, September 11-15.

American Hospital Association: Toronto, Ont., September 25-29.

International Association of Milk Sanitarians, Inc.: New Hotel Mayflower, Jacksonville, Fla., October 25-27.

International Hospital Association: Toronto, Ont., September 19-23.